

APRIL 1958

National
**SAFETY
NEWS**

A NATIONAL SAFETY COUNCIL PUBLICATION



SPRING AGAIN

**... and
Cleanup**

- » **Three-Pronged Attack on Accidents**
- » **Taming the Power Mower**



IT'S THE STEEL TOE
THAT MAKES
A SHOE SAFE !

don't

— *RELY ON
REGULAR SHOES!*

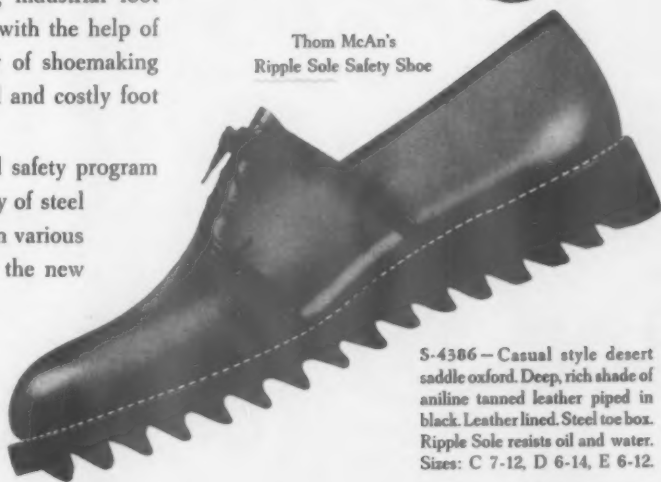
... they offer no more protection against falling objects than a pair of socks.

The protection of industrial workers' feet is a joint enterprise. Only by the complete awareness of existing industrial foot hazards can the conscientious safety engineer, with the help of his safety shoe suppliers and their vast army of shoemaking technicians, stem the increasing tide of painful and costly foot injuries.

Safety Box Toe Company's part in this vital safety program is to develop and produce the very finest quality of steel toes. We offer your safety shoe supplier nineteen various styles of steel toes for his selection, including the new improved WINGUARDS... the latest development in steel toe protection.



Thom McAn's
Ripple Sole Safety Shoe



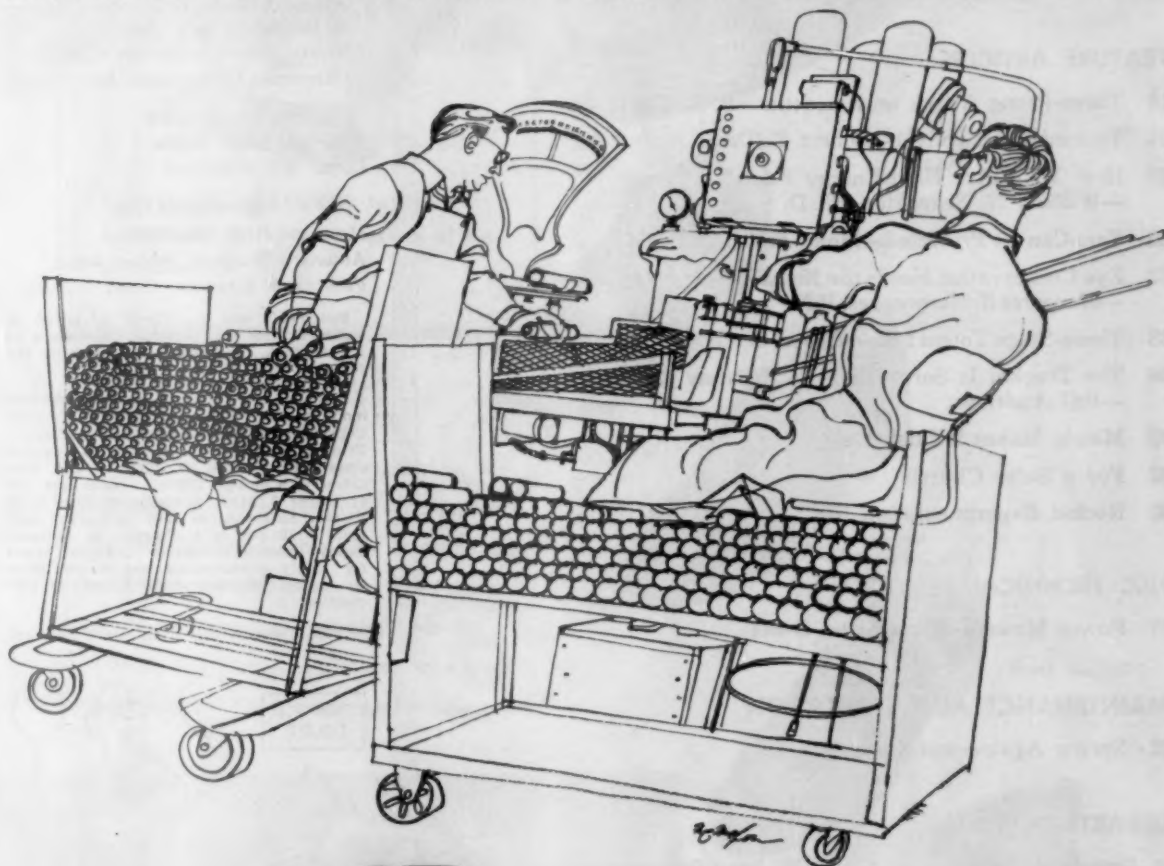
5-4386—Casual style desert saddle oxford. Deep, rich shade of aniline tanned leather piped in black. Leather lined. Steel toe box. Ripple Sole resists oil and water. Sizes: C 7-12, D 6-14, E 6-12.

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National SAFETY NEWS

A NATIONAL SAFETY COUNCIL PUBLICATION

Vol. 77, No. 4

APRIL 1958

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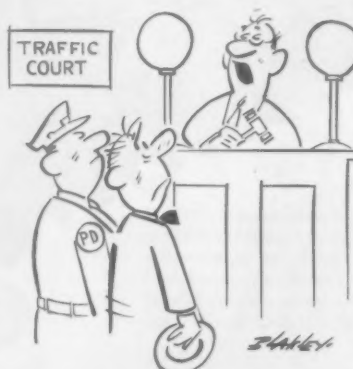
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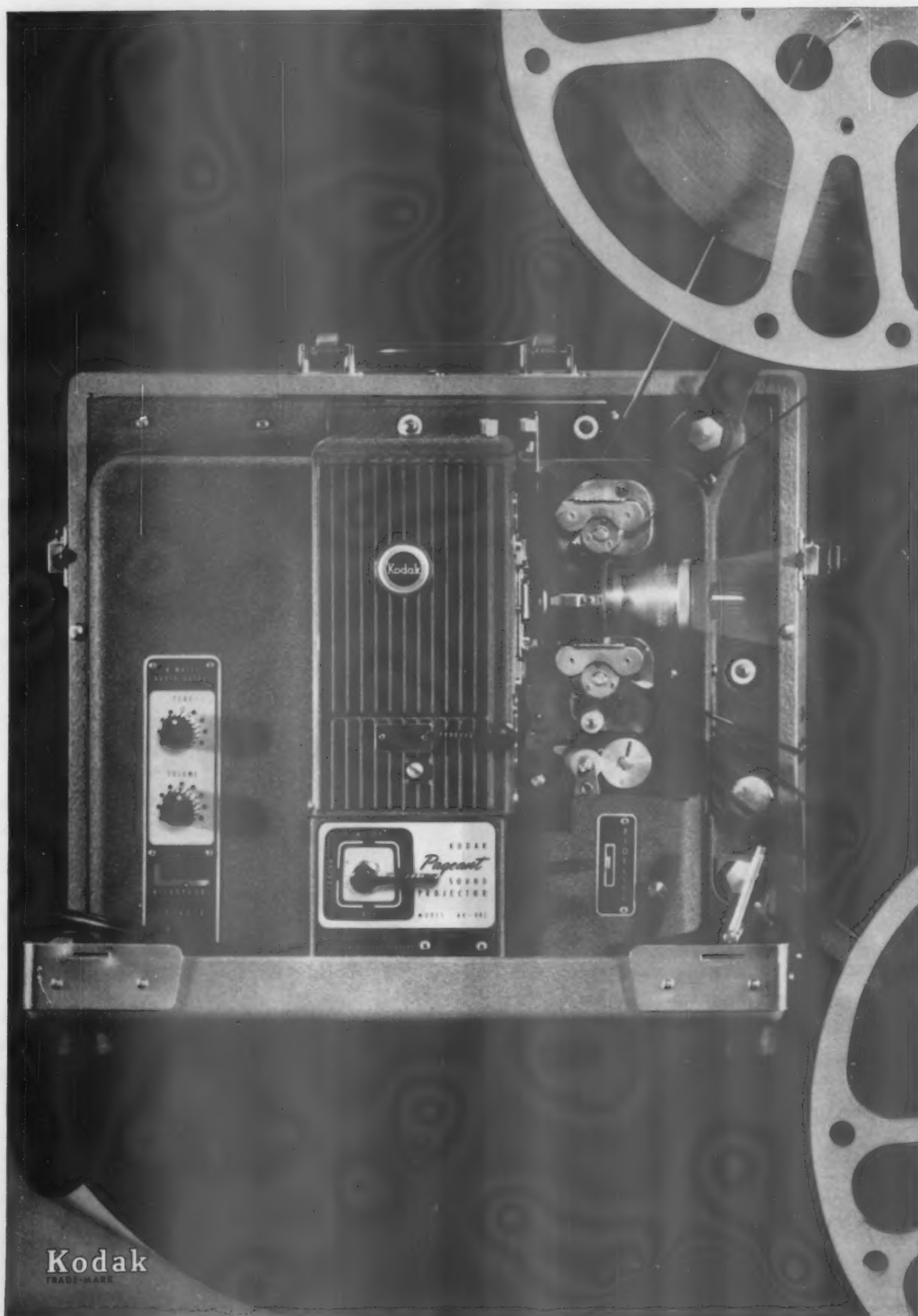
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Lehigh
SAFETY SHOE COMPANY

Emmaus, Pa.



Kodak
TRADE-MARK

KODAK MAKES AUDIO-VISUAL NEWS

ANNOUNCING A NEW KODAK PAGEANT SOUND PROJECTOR AT A NEW LOW PRICE

The new Kodak Pageant Sound Projector, Model AV-085, rolls prices back to 1955-56 levels. It lists for just \$439!* At the same time, it has all the essentials for good 16mm sound projection. The AV-085 is a true Pageant.

As with all Pageant Projectors, you *never* oil the AV-085: it's permanently lubricated for you at the factory. As with all Pageants, it is easy to operate, sets up in a jiffy with folding reel arms, attached belts, and simplified film path. And it has Kodak's exclusive Super-40 Shutter for added screen brilliance.

New features, too—There's a powerful, sensitive new amplifier, designed around *printed circuits*, to make it more compact, rugged, easy to service. It delivers its full rated 8 watts. For better listening, the speaker

is housed in a *baffled* enclosure which assures good response over its entire frequency range. The speaker itself is an 11-inch oval—shaped that way to make it compact—and designed to give you the same effective cone area as a conventional 8-inch round type.

The Model AV-085 has a new type of pull-down claw that's virtually wearproof, made of hard tungsten carbide. You'll have no problems with municipal electrical codes either—a new 3-wire cord provides for grounding, adapts to ungrounded outlets, too.

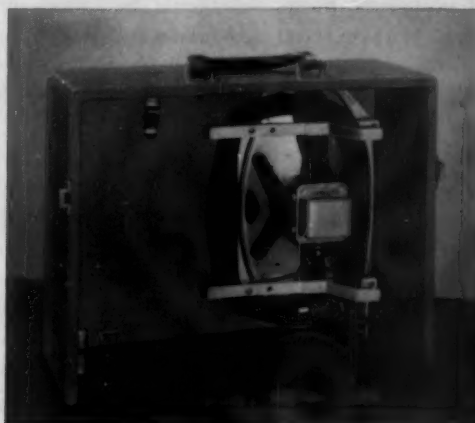
Ask your Kodak Audio-Visual dealer to demonstrate the new AV-085 Pageant. Or write for Bulletin V3-22 for full details. No obligation, of course.

*List price, subject to change without notice.

EASTMAN KODAK COMPANY, Dept. 8-V, Rochester 4, N. Y.



New low-cost Pageant Model AV-085 comes with economical 750-watt lamp, exclusive Kodak Super-40 Shutter for brilliant pictures on the screen.



Resonant, natural sound comes from new 11-inch oval speaker in baffled enclosure. Oval shape lends rigidity, makes case more compact.

Circle Item No. 3—Reader Service Card

The Dirty Old Days

BACK in the days when the brass wore frock coats and side whiskers and the front office reeked with dignity, cleanliness out in the shop was an unappreciated virtue. Even the men who worked there thought it was effeminate.

A handful of industry's aging veterans can remember when they carried home a crust of foundry dirt. Shower baths at the plant were unknown. Wash-up facilities consisted of a bar of yellow laundry soap and a crusted basin of cold water. Maybe there was a roller towel that had once been white.

Tobacco juice and cobwebs were standard first-aid remedies. Dark, dirty factories were reflected in many of the homes of the community. The Saturday night bath and the Sunday morning shave were honored customs.

Here's a quote from an anniversary booklet issued a few years ago by one of this country's largest corporations. It describes an all-too-typical plant of 1881:

"Our shops were dark and dingy, poorly ventilated, poorly heated, and generally unsanitary. Heat was provided by stoves, coal or coke-fired, and not too liberally distributed through the shops.

"Light was furnished by tallow candles and kerosene lamps—hot, smelly and poorly adapted for lighting purposes. The incandescent carbon filament lamp was not yet in use."

For much of the improvement in working conditions, we can thank better lighting. The carbon arc lamp, the filament incandescent lamp, and more recently the fluorescent and mercury vapor lamps have made their contributions to progress. Conditions tolerated under dim kerosene lamps showed up in all their repulsiveness when footcandles were multiplied.

Advertising also should be credited with an assist. Manufacturers of plumbing, paint, detergents, and dust-control equipment have helped to raise standards for factory and home. Advertising man, printer, engraver and photographer all have improved their techniques since the days of the brown derby and handlebar mustache.

Nor is it inappropriate to add that vehicles carrying advertising also have increased their appeal. Trade and technical publications are serving their fields much more effectively. They and consumer magazines have influenced standards of taste, comfort, and hygiene.

High standards, however, are still far from universal in industry. The communal drinking cup and the roller towel still lurk in backward industries in spite of legislation and propaganda. But the trend is definitely forward. Clean plants, clean homes, and clean communities have proved their value in improving health and industrial relations and increasing productiveness. Also important, though not so easily measured, is the increase in individual and corporate self-respect.

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SAFETY NEWS

from the laboratories of

CHEMICAL CLEANING COMPOUNDS

- Safer Solvent Cleaning
- Antiseptic Handwashing
- Clean, Non-Slip Concrete Floors



SAFER SOLVENT CLEANING

With the general trend away from the use of carbon tetrachloride as an industrial cleaning agent, much has been written in recent months about the so-called "safety solvents."

The proper selection of a safety solvent for cleaning electrical equipment must not only be based upon the obvious considerations of cleaning ability, cost, speed and attack on insulation, but it must, in safety-conscious plants, of necessity be based also on such important factors as toxicity, flash point and odor.

A good safety solvent should be a balanced blend, exhibiting the desired features of a straight petroleum-type solvent (with very little attack on insulating varnish and with very low toxicity) combined with the advantages of a chlorinated solvent (good solvency and extremely high flash point).

Turco-Solv is a material of this type, resulting from its balanced formulation. Its initial flash point (TCC) is in excess of 200°F. Although it is a mixture of solvents, its composition remains fairly constant through the complete evaporation cycle. The flash point during evaporation to complete dryness never falls below 125°F. (COC).

Moreover, Turco-Solv has been carefully

compounded without the inclusion of any of the more toxic chlorinated hydrocarbons, such as carbon tetrachloride, ethylene dichloride or tetrachloroethane. Simply stated, toxicological considerations were not abandoned merely for the sake of obtaining maximum cleaning power.

Turco-Solv boasts an optimum evaporation rate. A "middle of the road" material, Turco-Solv evaporates to complete dryness in five minutes, under normal field conditions. This is halfway between the slow-drying materials of the Stoddard Solvent type and the extremely volatile materials of the carbon tetrachloride or inhibited methyl chloroform types. Slow drying often leads to the possibility of evaporation residues, or dangerous electrical flashovers, when motors are started prematurely after cleaning. An excessively fast evaporation rate, on the other hand, leads to intensified fuming and a drastic rise in concentration of air contamination.

ANTISEPTIC HANDWASHING

Concerns whose personnel are subjected to absenteeism due to superficial skin infections caused by many common skin bacteria and some pathogenic fungi are looking with interest at the bacteriostatic soaps offered by cosmetic firms to the public today.

Turco Handisan, now antiseptic with Actamer (Monsanto's Reg. T.M.—Bithionol), offers industry a bacteriostatic industrial hand soap. Repeated daily usage of this product reduces resident skin bacteria by as much as 97%. (The available evidence shows that the full reduction of the bacterial population of the skin achievable with bithionol soaps requires regular daily use for at least one week.)

The resident bacterial population of the skin includes many deeply imbedded gram-positive organisms, not readily removable with soap and water, which are responsible for superficial skin infections and which may be contributory to secondary infections resulting from cuts and scrapes. Turco



Handisan with Actamer, by inhibiting the growth of offending organisms reduces the effects of their activity. By remaining in contact with the organisms and the skin long after applications, Handisan with Actamer provides continuing protection from the multiplication of residual bacteria.

Samples of this product are available without cost to safety engineers who request them on their company letterheads.

CLEAN, NON-SLIP CONCRETE FLOORS

Dirty concrete floors are not only dark and unsightly—they are dangerous as well. Grease is slippery. A greasy floor increases accidents. It also creates a fire hazard.

For many years, industrial concerns used flammable solvents to clean concrete floors. Now, with Turco Aktiv, this hazardous procedure is no longer necessary. Aktiv is a mild, yet potent, non-caustic alkaline powder, ideal for use on any floor that can be mopped with water. After mixing Aktiv with hot water, the solution is applied to the surface of the floor and worked in with a brush. A dwell time of several minutes allows the solution to penetrate grease, breaking the bond that holds the grease to the concrete. A pressure water rinse removes the grease, suspended in the Aktiv solution and leaves floors clean, bright—and safe!

Handisan and Aktiv are registered trade marks.



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Without obligation, please send free illustrated literature on the subject checked.

- ☐ Safer Solvent Cleaning
- ☐ Antiseptic Handwashing
- ☐ Clean, Non-slip Concrete Floors

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NSN

Circle Item No. 4—Reader Service Card

CONSULTATION CORNER

By L. C. Smith, Industrial Department, NSC

Got a problem in accident prevention or occupational hygiene? Questions are answered by mail, a few of general interest being selected for publication here

Dermatitis in Food Processing Plants

Question. A problem in several of our plants is dermatitis resulting from handling chicken and turkeys in food processing. Do you have any suggestions that might solve this problem?

Answer. We have checked with a number of large packing companies concerning your problem and received some suggestions that should help.

First, most dermatitis is produced by long-continued intimate contact with the material involved. Personal cleanliness to reduce the duration of this contact is the most important single item in a preventive program. In other words, regardless of the source, plenty of soap and water is an excellent way of preventing dermatitis. This means washing the hands at least three or four times during an eight-hour shift. Some food processing plants have installed additional wash basins near the work area to facilitate keeping the hands clean. Soaps that contain the ingredient hexachlorophene are especially effective in controlling dermatitis.

Rubber surgical-type gloves are also helpful in controlling dermatitis from this source. However, rubber gloves of this type often develop pinholes which allow water to seep in, making a good environment for bacteria. When gloves develop pinholes, they should be discarded. Several sources recommended using a hand lotion before putting on the rubber gloves. Such lotions should be rubbed well into the hands before putting on the gloves.

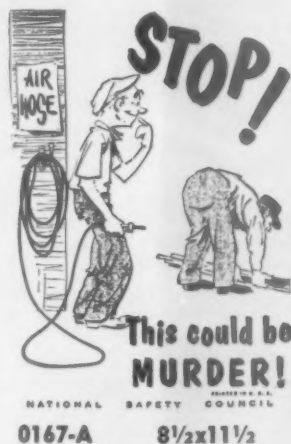
In spite of all precautions you may find that some people may

still suffer from dermatitis because of a particularly sensitive skin. In such cases, they may have to be transferred to another job.

Cleaning Clothes with Compressed Air

Question. Many of our workers in the cement industry follow the practice of blowing dust from their clothes with compressed air. Is this a recommended procedure?

Answer. No. Dusting clothes with an air hose or using compressed air for any purpose where it comes in contact with the body is dangerous. An air stream from a compressed air line, even from a low pressure line, may pass through an opening in the skin and cause a severe injury or even



death. We have a number of cases on file where this has happened.

In your case, use of compressed air would blow much of the fine dust from the outside of the clothing to the inside which could result in additional problems. This fine dust, in contact with the skin, may settle in the pores setting up a condition for dermatitis. Also,

the use of compressed air creates an additional hazard of blowing dust particles into the eyes of persons who may be near. Vacuum equipment should be provided for cleaning of this type. Brushes may also be used to brush dust from the clothing.

Group Relamping Is Economical

FOUR IMMEDIATE BENEFITS from replacing lamps in large groups rather than one lamp at a time are listed by engineers of General Electric's Large Lamp Department:

1. Lower labor cost. The job is finished in a fraction of the time it takes to replace lamps one at a time.
2. More light delivered. New lamps give more illumination for lighting cost.
3. Fewer work interruptions. Between group relampings, few lamp replacement trouble calls are needed.
4. Longer life for auxiliary equipment. Older lamps sometimes flash and blink, damaging fluorescent starters and ballasts. Group relamping makes this auxiliary equipment last longer.

In an installation of 100 40-watt fluorescent lamps, rated at 7,500 hours, or about 1,000 days in a single-shift plant, there should be no burnouts in the first 200 days. During the second 200 days, or 40 per cent of life, about 1 per cent should fail. Between 400 and 600 days about 5 per cent will fail.

Between 600 and 800 days, or 80 per cent of life, 20 per cent of the lamps will have failed. It pays to relamp at this point or before. By group relamping at 80 per cent of life, it is estimated that 61 costly individual spot replacements would be eliminated.

Many industries have found:

—Cost of spot replacing a burned out lamp is usually more than the price of the lamp itself.

—Actual lamp cost is down because prices have remained relatively constant for the past 10 years while today's lamps give up to 30 per cent more light than they did in 1950.

—Old lamps give less light because there is a gradual drop-off in lighting efficiency as the lamps are used.

Magic

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means ...

Quality Cleaning Stations



Magic Silicone Lens Tissue:
America's Leading Eye-Aid for
Safety

Magic Heavy-Duty Cleaning
Station: Science's Answer to
Grit, Fog and Grime

MAGIC SILICONE LENS TISSUE the highest quality, first-class sheet of Silicone-treated tissue made in our country; marvel of the paper-makers art; finest quality to be found in the world.

It exceeds every specification for scientific use under most exacting conditions where super-quality-softness, no lint and Silicone treatment is required as in atomic laboratories, etc. It deposits a protective film of sparkling Silicone on lenses. Science's answer to foul sight.

No glossy surface to prevent absorption of oil and oil mists from lens. It polishes and protects as it cleans instantly. Crystal-clear. Size and tearing strength are elements of quality. So, each sheet is over 50% larger than usual and has twice the tearing strength. **YET MAGIC TISSUE COSTS YOU LESS.**

Quality carries through to the Dispenser. Made of strong 20 gauge steel, indestructible. No moving parts. Self-mounting—just stick it to the wall.

MAGIC HEAVY DUTY Cleaning Station is for grimy areas where washing with a fluid is unavoidable, or where Anti-Fogging treatment is required, or for use on plastics or any eyewear.

MAGIC Cleaning & Anti-Fogging Fluid is combined; a two-in-one triumph. It's pressure-packed. Touch the top and Presto! The can does the rest. Nothing to refill. Each can will clean about 360 glasses, whereas old-fashioned 6-oz. bottles clean only about 100. Or, if you wish to use your own home-made fluid, we can supply our adapter (\$2.70) with a giant 16-oz. bottle and plunger complete.

The Heavy Duty Paper is our superb, super-strong, wet-strength sheet. No scratching on plastic, and no lint. These sheets are inter-folded and are released one by one, not in bunches, also reducing waste. The **MAGIC** watchword **Quality**. Order Now! Wire or write us or your safety jobber today.

Magic Silicone Lens Tissue.....per carton \$8.40
(6 (800 sheet) refills per carton)

Magic Lens Tissue Dispenser.....each 2.50

Magic Heavy Duty Dispenser.....each 5.95

Cleaning & Anti-Fogging Fluid
(Twelve 12 oz. cans) per carton 12.50

Magic Heavy-Duty Paper.....per carton 11.60
(18 giant refills (760 Sheet))

Magic Heavy Duty Units.....each 7.65
(Dispenser, 1 can Fluid, 1 packet paper)

Exchange all your other Stations for Magic FREE



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Self Dispensing boxes.

Self Dispensing
box for your desk
or any place in the
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Circle Item No. 5—Reader Service Card

THE SAFETY VALVE



Nothing human is alien to me

—TERENCE

Whitewash

THE STORY you are about to read is true. Names of persons and places have been omitted to avoid possible embarrassment to our correspondent. Also, nothing would be gained by identifying a plant that doesn't belong in the twentieth century. There are plenty more like it, as any factory inspector knows.

The writer is a consulting engineer. After visiting a plant in one of the country's industrial centers, he writes:

"In all the years I have spent around machinery, I have never seen such a mess. After four hours of looking at unguarded or improperly guarded machines and listening to dozens of thin excuses, I was glad to get away.

"Garnetting machines were set too close to let a repair man work on one while the next machine is running.

"I didn't find one machine protected by a padlocked switch. I think they will do some of the things I advised to get the state inspector and their insurance man off their backs.

"After I had finished my list of work to be done, they asked me to do two things: go to the state capital and try to get the Department of Labor to ease up on them, and to visit some of their competitors and report on conditions in their plants.

"Last time I did a whitewash job was on a chicken house back home in Indiana."

* * *

MILITARISM is produced by a constant preoccupation with the chances of war and the necessity of being prepared for it, and this preoccupation bars the way when people want to think about the reform of institutions or the extension of popular or any other useful social enterprise.—William Graham Sumner, 1896.

Soul Searching

MENTAL HEALTH and the tensions of modern living are topics that come up repeatedly in speeches and articles. And one of the most widely quoted authorities along this line is Dr. William C. Menninger.

At a recent meeting in Chicago, Dr. Menninger recommended emotional as well as physical checkups for executives. (That term, loosely used, might include editors).

Loneliness, frustration, and self-doubt harass the men who make important decisions. Every executive, Dr. Menninger says, should set aside some time, at least once a year, to decide where he is going, what are his ambitions and aspirations, and what in his personal life is most important.

In conducting an emotional checkup, Dr. Menninger would want to know:

How do you get along with other people?

Are you "on" one day and "off" the next?

How do you handle a situation when things get rough—get jittery or paralyzed so you can't function?

How much fun do you have in constructive, creative giving of yourself?

How well do you accept frustration? Can you accept it for future gain?

How free are you of anxiety? What outlets do you have when you are tense and anxious?

And finally, Dr. Menninger said, he would want to know, "When you're troubled, do you go and get help? It takes courage to seek help and to 'examine ourselves'."

Yet this self-examination might conceivably be carried too far. The late Dr. C. O. Sappington once remarked that preoccupation with health, mental or physical, could become a most unwholesome habit.

Library Week

BY THE TIME this issue gets in the mail, Library Week will be in the past tense. But our public libraries keep on serving us 52 weeks a year.

The shelves of a big city library contain more wealth than the vaults of the First National Bank. The cash investment in books alone is a big item but their value doesn't stop there. The accumulated wisdom and knowledge of centuries is yours for the asking—as well as Erle Stanley Gardner's latest whodunit.

In the reference and periodical rooms you can spend a pleasant hour browsing, and perhaps pick up some useful bits of knowledge.

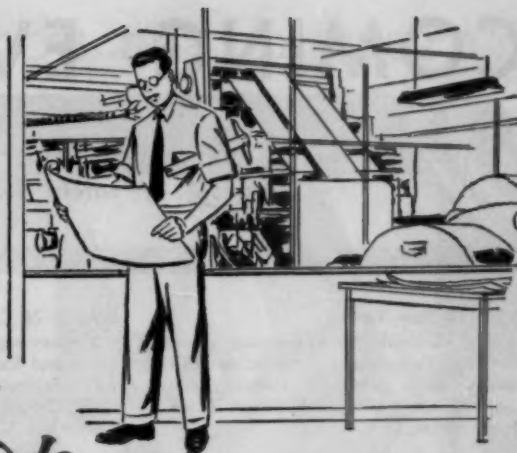
I do not know of any municipal enterprise that gives us more for our taxes than the public library.

* * *

PLANTING and pruning trees I could work at from morning till night. There is a sort of self-congratulation, a little tickling of self-flattery in the idea that while you are pleasing and amusing yourself, you are seriously contributing to the future welfare of your country.—Sir Walter Scott.

Carman Fish

*Travels in the
best industry circles...*



NEW Iron Age

Ambassador

SAFETY SHOE

**with BEARFOOT NITROCREPE NEOPRENE SOLE
and Safe Grid Tread**



No. 615

A 8-13 C 6-13
B 7-13 D 6-13
E 6-13

Your people, from executives on down, will proudly wear this new Iron Age "Ambassador." Smart styling plus utility make it equally at home in office or plant.

The "Ambassador" has three outstanding safety guards.

- (1) A grid tread Bearfoot Nitrocrepe Neoprene sole to prevent slipping.
- (2) A steel toe, encased in leather to prevent foot injuries.
- (3) No-lace construction; nothing to catch, break or come untied.

The glistening golden brown upper leather is No. 1 grade "Catalina"—a special tannage by Pfister and Vogel of Milwaukee. A hidden gore assures both instep comfort and ankle hugging fit.

Ask your Iron Age representative to show this distinctive new style; created and quality-crafted to help you increase your coverage.



*The Safety Shoe
for Industrial
America*

Iron Age DIVISION

H. CHILDS & CO., INC. • PITTSBURGH 12, PA.

Circle Item No. 6—Reader Service Card

COMING EVENTS



*in the
safety field*

Apr. 7-8, New York

Fifth Annual Safety Seminar of the National Paperboard Association (Biltmore Hotel). Albert W. Luhrs, executive manager, 1145 19th Street, N. W., Washington, D. C.

Apr. 9-11, Gainesville, Fla.

Fifth Annual Conference on Accident Prevention Engineering (University of Florida). Donald B. Wilcox, conference coordinator, Department of Industrial Engineering, University of Florida, Gainesville, Fla.

Apr. 9-11, St. Louis, Mo.

Central States Safety Conference (Hotel Chase). Wm. F. Yorger, managing director, Safety Council of Greater St. Louis, 722 Chestnut St., Suite 321, St. Louis 1, Mo.

Apr. 14-18, New York

Twenty-eighth Annual Safety Convention and Exposition of the Greater New York Safety Council (Hotel Statler). Paul F. Stricker, executive vice-president, 60 E. 42nd St., New York 17.

Apr. 15-17, Detroit, Mich.

Twenty-eighth Annual Michigan Safety Conference (Sheraton Cadillac Hotel). Ben Duguid, executive secretary, 16130 Northland Dr., Detroit 35, Mich.

Apr. 16-17, Indianapolis, Ind.

Eleventh Central Indiana Safety Conference and Exhibit. (Claypool Hotel). Jack E. Gunnell, director, Indianapolis Safety Council, Chamber of Commerce, Indianapolis, Ind.

Apr. 19-25, Atlantic City

Thirteenth National Industrial Health Conference (Convention Hall). Dr. Edward C. Holmblad, managing director, Industrial Medical Association, 28 E. Jackson Blvd., Chicago 4, Ill.

Apr. 21-22, Toronto, Ont.

Annual Conference of the Industrial Accident Prevention Associations (Queen Elizabeth Bldg., Canadian National Exhibition). R. G. D. Anderson, general manager, IAPA, 90 Harbour St., Toronto 1, Ont.

Apr. 21-26, Atlantic City

Nineteenth Annual Meeting of the American Industrial Hygiene Association (Claridge Hotel). George D. Clayton, executive secretary, 14125 Prevost, Detroit 27, Mich.

Apr. 22-24, Columbus, Ohio

Twenty-eighth All-Ohio Safety Congress and Exhibit (Deshler-Hilton Hotel). Arthur W. Moon, congress manager, Room 611, Ohio Dept. Bldg., Columbus 15, Ohio.

May 1-3, Norfolk, Va.

Annual Conference of Virginia Safety Association (Monticello Hotel). James T. Wadkins, manager, 2501 Monument Ave., Richmond, Va.

May 5-7, Allentown, Bethlehem, Easton, Pa.

Thirty-first Eastern Pennsylvania Safety Conference. Harold E. Seward, Lehigh Valley Safety Council, 602 E. 3rd St., Bethlehem, Pa.

May 6-8, Buffalo, N.Y.

Eighteenth Western New York Safety Conference and Exhibit (Hotel Statler). Clifford H. Seymour, executive secretary, P.O. Box 315, Niagara Falls, N. Y.

May 7-8, Cedar Rapids, Iowa

Fifth Annual Safety Conference of the Industrial Safety Association of Iowa (Sheraton-Montrose Hotel). Pegge Resch, executive secretary, 611 Central National Bldg., Des Moines, Iowa.

May 8-9, Baltimore, Md.

Governor's Annual Safety-Health Conference and Exhibit (Lord Baltimore Hotel). Joseph A. Haller, executive, chairman, Department of Labor and Industry, 12 E. Mulberry St., Baltimore 2, Md.

May 14-16, Asheville, N. C.

Twenty-eighth Annual North Carolina Statewide Industrial Safety Conference (Battery Park Hotel). H. S. Baucom, director of safety, North Carolina Industrial Commission, Raleigh, N. C.

May 19-23, Chicago

Sixty-second Annual Meeting of the National Fire Protection Association (Palmer House). Robert W. Schuette, manager, Public Relations Dept., NFPA, 60 Batterymarch St., Boston 10, Mass.

May 20-21, Louisville, Ky.

Kentuckiana Safety Conference and Exhibit (Kentucky Hotel). Estel Hack, executive vice-president, Louisville Safety Council, 214 Speed Bldg., Louisville 2, Ky.

May 21-22, Oklahoma City

Tenth Annual Oklahoma Safety Conference (Skirvin Hotel). Bob Eastman, manager, Oklahoma Safety Council, 1600 N. W. 23rd St., Oklahoma City, Okla.

May 22, Fort Atkinson, Wis.

Thirtieth Annual Rock River Safety Conference of Wisconsin. Kenneth J. Pattow, president, Fort Safety Council, c/o James Mfg. Co., 104 W. Milwaukee Ave., Fort Atkinson, Wis.

May 22-23, Duluth, Minn.

Thirty-fourth Annual Conference of the Lake Superior Mines Safety Council, Hotel Duluth. Allen D. Look, secretary, 329 Federal Bldg., Duluth 2, Minn.

June 9-12, Cleveland, Ohio

Eighth National Materials Handling Exposition (Public Auditorium). Clapp & Poliak, Inc., Exposition Management, 341 Madison Ave., New York.

June 11-12, Bridgeport, Conn.

Thirteenth Annual Connecticut Safety Conference (Stratfield Hotel). A. V. Short, publicity director, 15 King St., Wallingford, Conn.

June 12-14, White Sulphur Springs, W. Va.

Eighty-sixth Annual Meeting, Manufacturing Chemists' Association. (Greenbrier Hotel). Charles E. Wallace, Manufacturing Chemists' Association, Inc., 1625 Eye St., Washington 6, D. C.

Sept. 16-18, Cleveland, Ohio

Twentieth Annual Ohio State Safety Conference (Pick-Carter Hotel). H.G.J. Hayes, secretary-treasurer, Ohio State Safety Council, 8 E. Chestnut St., Columbus 15, Ohio.

Sept. 18-19, Rockland, Maine

Thirty-first Annual Maine State Safety Conference (Samoset Hotel). Arthur F. Minchin, secretary, Department of Labor and Industry, State House, Augusta, Maine.

Oct. 20-24, Chicago

Forty-sixth National Safety Congress and Exposition (Conrad Hilton Hotel). R. L. Forney, secretary, National Safety Council, 425 N. Michigan Ave., Chicago 11.

Nov. 3-6, 1958, Philadelphia

Third National Industrial and Building Sanitation Maintenance Show (Convention Hall). Leonard S. Rogers, Orkin Expositions Management, 19 West 44th St., New York 36.

Nov. 30-Dec. 5, New York

American Society of Mechanical Engineers, Annual Meeting. (Statler and Sheraton-McAlpin Hotels). ASME, 29 West 39th St., New York 18.

do your employees know the answers?



which worker is lifting safely? 1

2 which safety rule is this worker violating?

3 should hand trucks or carts be pulled or pushed downhill?

4 is this worker following good safety practice?

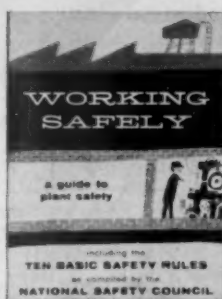
Give your workers a safety refresher course with "Working Safely"... a new safety booklet available from your STEEL SERVICE CENTER stocking Inland 4-WAY® Safety Plate

Safety is a subject we can never learn too much about. That's why you will be doing yourself and the employees in your plant a favor by providing them with copies of this new pocket-size guide to plant safety. "Working Safely" has been compiled by the Safety Engineers of Inland Steel Company and includes the ten basic safety rules of the National Safety Council as well as safety tips on many other subjects.

Copies of this booklet are available from your STEEL SERVICE CENTER.

Another Good Safety Rule—To cover those areas in your plant and on your products where feet and wheels must have safe, sure traction, use Inland 4-WAY Safety Plate... 4-WAY is available in large, medium or small pattern, in a wide range of sizes and gages, from your local STEEL SERVICE CENTER... the most logical source of supply for less-than-carload orders of steel and specialized steel services.

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answers:

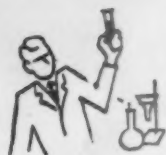
1. Worker on right is lifting safely. Always bend knees when picking up heavy loads.
2. No safety shoes! He's risking a broken foot or toe!
3. Pushed...always. When you pull a cart, it can get away and run you down.
4. No! Never paint a ladder. It covers up cracks and weaknesses. Use clear varnish instead.

Inland Steel Company

30 West Monroe St.,
Chicago 3, Illinois



INDUSTRIAL HEALTH



Abstracts of current literature

on Occupational Hygiene, Medicine, and Nursing

By E. L. Alpaugh, Industrial Hygienist, NSC

Model Label Law For Toxic Chemicals

RECENTLY formulated by the Committee on Toxicology of the American Medical Association is a model law for precautionary labeling of hazardous substances in commercial, household, and industrial chemical products.

This proposed model law is the result of an exhaustive review of existing statutes which revealed a hodgepodge of local regulations for labeling chemicals, according to Bernard E. Conley, Ph.D., secretary of the committee.

Targets of the law are hazardous substances defined as toxic, irritating, sensitizing, corrosive, flammable, explosive, or radioactive under customary or reasonably anticipated conditions of handling and use.

Among requirements listed by the proposed model law, all chemical products containing hazardous substances, not now regulated, would receive labeling. Chemicals for export would require the same labeling standards as those for domestic consumption. Re-use of food and drug containers bearing their original labels would be prohibited. Identification and warnings would be mandatory for strongly sensitizing chemicals that cause allergic or inflammatory reactions in living tissue on contact.

Deletion of the word "poison" from the bill's provisions is believed a significant departure from previous laws. Surveys indicated wide variation in existing legal limits for poison, and a lack of agreement among scientists on definition of the term "poison." This committee considers reference standards for toxicity based on animal tests as a more consistent, reliable index of poisonous properties of chemicals.

Inadequate labeling of poten-

tially harmful chemicals has been a major handicap to a successful attack on accidental poisonings. Latest mortality statistics show 1,431 persons died in 1955 from accidental overexposures to packaged chemicals. One-quarter of these fatal poisonings by liquid and solid substances occurred in pre-school-age children. More than 80 per cent of such accidents took place in the home.

Non-fatal poisonings are estimated to be 100 to 150 times the number of fatalities. The model law will help make parents more aware of hazards of many common household substances.

Industrial Health Congress

Summary of material presented at the American Medical Association Industrial Health Meeting Jan. 27-29, 1958, in Milwaukee, Wis.

Public and professional relations in occupational health, evaluation of disability, occupational skin diseases, and low-back pain related to employment were on the agenda of the Eighteenth Annual Congress on Industrial Health, sponsored by the American Medical Association Council on Industrial Health.



Dr. D. J. Birmingham, chief dermatologist of the Occupational Health Program, U.S. Public Health Service, said plastics have become a much greater cause of skin diseases since 1943. Fiberglass materials also have produced skin problems through irritation of the skin by glass slivers.

Increased use of soluble cutting oils (lubricants and cooling agents for high-speed tools) has resulted in a rise in contact dermatitis, a skin inflammation developing from contact with certain substances.

Exposure to butyraldoxime, a printing ink chemical, causes a skin reaction if the blood contains alcohol. This reaction is similar to but milder than effects of antabuse, the drug given chronic alcoholics to help them stop drinking.

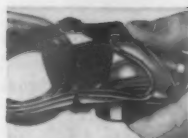
Dr. Birmingham mentioned a dog and cat hookworm parasite, found in sandy soil of Florida and other southeastern states, that starts creeping eruption on the skin of plumbers who crawl under buildings to make repairs. He also indicated that physical agents, such as radiation and ultraviolet light may cause skin ailments.

"While new cases of occupational skin diseases will continue to appear, the most common type—contact dermatitis—can be readily diagnosed, successfully treated and prevented," Dr. Birmingham said.

Dr. James W. Jordon of the AMA Committee on Occupational Dermatoses said the cause of industrial contact dermatitis usually is found by: consideration of time of onset of the difficulty, areas of skin involved, substances to which individuals are exposed at work and elsewhere, patch testing, and observation of the pa-

—To page 76

PUT YOUR EYES BEHIND THIS CUSHION-SOFT, COMFORT-FIT PROTECTION!



Patent
Pending

New STYLE 5051 – WELSH "SOFT-I," CHIPPERS' COVER GOGGLES

Soft, light, pliable, transparent cups make wearability a reality — fit easily over prescription goggles — mold comfortably to facial contours. Style 5050 with opaque cups and metal baffles for welders.



Patent
Pending

STYLE 5070 – WELSH "CYCLOPS" WELDERS' EYE SHIELD

Soft, resilient, one-piece, opaque frame molds comfortably to the face. Has simplified lens holder for easy changing of filter and cover plates. Style 5071 with transparent frame for chippers.

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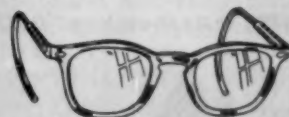
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Series 1070 Soft Pliable Vinyl Frame
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Square Shape Lens



Series 2800 Combination Metal and
Plastic Frame — Square Shape Lens

WELSH —
*Willingly Worn By
Workers Everywhere*

Circle Item No. 8—Reader Service Card

AT WORK OR IN EMERGENCIES:

Why fire hose jacketed with Du Pont "DACRON" outperforms— outlasts ordinary hose

REG. U. S. PAT. OFF.



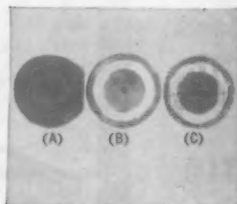
A LEADING PAPER PRODUCER finds hose jacketed with 100% Du Pont "Dacron" polyester fiber ideal for its operations: Chemical-resistant "Dacron" is unaffected by the caustic substances that are constantly on the ground in the area. And because "Dacron" will not rot or weaken from mildew, hose can be washed and dried on the racks . . . doesn't need frequent testing—a great saving in man hours.

PROVED: Tests show how "DACRON" gives improved performance...



SOIL-BURIAL TEST.

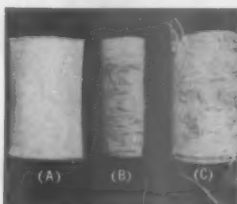
The two samples shown were buried in moist, warm soil for 28 days. When removed, the conventional hose specimen (right) showed signs of damage by bacterial and mold colonies. The specimen with jacket of 100% "Dacron" (left) did not support the growth of microorganisms and was merely soiled.



TABER ABRASION TEST.

In this test, hose specimens were compared for resistance to abrasion. Each test was stopped at the point where the hose had theoretically reached its maximum service life. (A "cycle" represents one complete revolution of the abrading wheel.)

- (A) Rubber-covered conventional hose 4,150 cycles
- (B) Single-jacket hose of "DACRON" 12,500 cycles
- (C) Conventional single-jacket hose 1,830 cycles



CHEMICAL-RESISTANCE TEST.

Here's what happened when three common types of industrial fire hose were immersed in a 17% solution of sulfuric acid for 24 hours.

- (A) 2 1/2" hose, single jacket of "Dacron", no apparent damage.
- (B) 1 1/2" hose, conventional jacket, damaged.
- (C) 2 1/2" hose, "Dacron" and conventional fiber, no damage to "Dacron".

Now hose manufacturers make an easy-handling fire hose that's ideal for both firefighting and operational use around the plant. This hose jacketed with 100% "Dacron" offers unusual versatility because of the "just-right" balance of properties found in Du Pont "Dacron".

First, it's stronger, (hose made of "Dacron" has more than 200 pounds greater test strength than most conventional single-jacket hose) and yet it's about 25% lighter. It is easier to handle, and much more flexible than previous types—gets into action fast in any emergency.

Hose jacketed with "Dacron" is economical to use for maintenance jobs because of its high abrasion resistance. It stands up under day-after-day exposure to most chemicals, too. Hose jacketed with "Dacron" has good resistance to acids, salt water, alcohols, oils, hydrocarbons and detergents. And this new type of hose *can't be weakened by mildew* . . . remains dependable year after year.

*"Dacron" is Du Pont's trademark for its polyester fiber.

Du Pont makes "Dacron" fiber . . . does not manufacture hose. However, we'll gladly send you names of manufacturers of hose jacketed with 100% "Dacron".



FREE BOOKLET: Outlines properties of hose made with "Dacron". For your copy, write: E. I. du Pont de Nemours & Co. (Inc.), 5518-D Nemours Building, Wilmington 98, Delaware.



REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY

FIRE HOSE MADE WITH "DACRON"—easier to handle... abrasion-resistant...

not weakened by rot and mildew... costs less in the long run

Circle Item No. 9—Reader Service Card

WIRE FROM WASHINGTON



By Harry N. Rosenfield

Washington Counsel, National Safety Council

"SAFETY IS ALWAYS," said the Undersecretary of Commerce for Transportation. And so it is in the Washington scene.

Highway Safety. Congressman Roberts, Chairman of the House Special Subcommittee on Traffic Safety, introduced H.R. 10832, which would forbid any automobile manufacturer to ship in interstate commerce any automobile which is not equipped with certain reasonable safety devices required by, and conforming to standards set by, the Secretary of Commerce. Criminal sanctions are provided in the bill. The requirements would take effect 190 days after the publication of the standards. The bill, in general, follows the legislative pattern of Roberts' bill requiring safety latches in refrigerators, which was enacted in 1956 (see "Wire," Sept. 1956, July and Sept. 1957).

In introducing the bill, the Congressman said it was "imperative" that manufacturers "build a safer car." Testimony before his committee "indicates that scientists and engineers know which structural parts of the automobile are causing the greatest amount of injury to persons in accidents. Action must be taken to remove these unnecessary hazards." He said that "experiments have demonstrated that a major percentage of injuries could have been prevented by proper packaging of the passenger." He noted the need for improved safety construction with respect to seats, cushions, knobs, steering wheels, overhead structure, and padding, and complimented the auto industry for its action in improving door locks. Roberts warned that the industry's resistance to design changes for safety "cannot be tolerated." The Federal Government has

acted before in matters of such universal concern to the nation's health. It must do so now."

S. 3356 (Humphrey) is a companion bill to Congressman Roberts' earlier H.R. 7882 relative to seat belts. The Senator said that "it would seem imperative for all manufacturers to meet SAE standards." S. 969 was signed into law as Public Law 338, 85th Congress, and provides for chemical tests for alcohol for drivers within the District of Columbia.

The American Bar Association at its mid-year meeting approved a program adopted by the first Public Officials Traffic Safety Conference, with respect to the immediate and long-range needs for the improvement of traffic courts. (See "Wire," Jan. 1958.)

The Supreme Court of the United States refused to review, and therefore left standing, a Texas court's decision making it unlawful to drive at a speed "greater than reasonable or prudent"; the attack was that the law was void for vagueness. (See "Wire," Feb. 1958.)

The safety aspects of the highway construction program keep the limelight. Prevention of accidents is mentioned in the current debate over acceleration of the program's pace. And in its highway safety study under that program, the Bureau of Public Roads "as a first step" is examining what has already been accomplished by "other safety groups."

Industrial Safety. Various bills were introduced relative to coal mine safety. S. 3290 would amend the Federal Coal Mine Safety Act to remove the exemption for certain mines employing no more than 14 people, and provide federal inspection. The sponsors stated that fatalities in small

mines were three times as high as in other mines; although such small mines produced only 7 per cent of the coal tonnage, they were responsible for 25 per cent of all mine accidents in 1957. On the House side, a substantial number of Congressmen introduced similar bills. The Bureau of Mines issued its final amended regulations for multiple-shot blasting units.

The Interstate Commerce Commission issued a rule-making procedure to change the Motor Carrier Safety Regulations relating to the adequacy of brakes and parking brakes for busses, trucks and truck-trailers. The move was taken, said ICC, because "continuing study and investigation have established facts which warrant" the modifications. S. 3102 would negate the decision of the Supreme Court (see "Wire," July 1957) which ruled that small 4-wheel track motorcars or push trucks were subject to the Safety Appliances Act. The rationale for the proposed legislation is that the Court's decision has the effect of creating new hazards and causes collisions because suitable safety appliances are not available.

The Atomic Energy Commission reported to Congress plans to revise regulations affecting its licensees as to radiation exposure standards, so as to make them consistent with the recommendations of the National Committee on Radiation Protection and Measurement. That Committee's standards lowered the permissible levels of radiation exposure for both radiation workers and the general public, and the AEC had previously adopted those standards for its own industrial operations (see "Wire," Feb. 1958).

—To page 60

TOP LEVEL managers comprise the membership of the Department Safety Council, one of three safety councils in the Chemical Processing Department at General Electric's Hanford Atomic Products Operation. This council provides interest and support for the Department's safety programs. Here, the author is pointing out the Department's injury trend at a meeting of the council.



3- PRONGED ATTACK ON ACCIDENTS

A SAFETY program system that gets management support and direction, provides a diversity of programs, and continually seeks out and corrects accident-producing conditions is operating on three dynamic fronts in General Electric's Chemical Processing Department, Hanford Atomic Products Operation, Richland, Wash.

The system is a three-pronged attack, based on a three-council organization. These councils are the Department Safety Council, the Program Council, and the Accident Prevention Council. The work of the three councils is integrated by the department's Health and Safety Operation.

Chemical Processing Department (CPD) is one of three GE product departments at the Hanford Atomic Products Operation which GE directs for the Atomic Energy Commission.

B. E. CLARK, JR., is manager, Health and Safety Operation, Employee Relations, Chemical Processing Department, Hanford Atomic Products Operation, General Electric Company, Richland, Wash.

By B. E. CLARK, Jr.

Three councils integrated with the safety department maintain a constant drive on accident causes at G-E's Hanford Atomic Operation

This department has the usual safety problems of an industrial chemical plant, plus special radiation protection difficulties. However, CPD's primary function is chemical separation of plutonium and uranium from irradiated fuel elements received from Hanford's reactors.

Handling, storage, and disposal of waste streams containing highly radioactive fission products is in itself a special business. Evidence of effective safety and radiation controls is the record of no serious injury from radiation in nearly 12 years since GE assumed control of the operation at Hanford.

CPD's general manager, W. K. MacCready, is chairman of the Department Safety Council. Each top level manager of the nine functional operations occupies a

permanent position on the council. The Health and Safety Operation Manager performs secretarial duties.

This group sets policy and maintains high standards of performance for the 1,600 department employees.

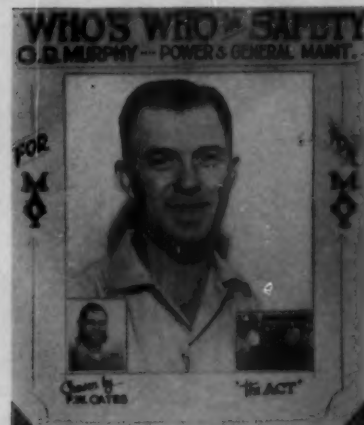
A typical agenda of the monthly meeting includes:

1. Review of Statistics and Trends

Progress toward goals is analyzed from monthly values posted on charts. These include cumulative medical treatment, injury frequency rates, radiation occurrences, and lapse of security control. Comparison is made between the CPD, other HAPO components, and Hanford's overall experience. Statistical reports are



LEFT: The "Who's Who in Safety" quarterly program gets a boost on the plant signboard. When not used for special promotion, signboards are used for safety slogans.



ABOVE: A montage of contest winners placed at plant entrances and other conspicuous locations quickly spreads the word about safety. A "Who's Who in Safety" contest received this treatment and stimulated participation in contests.

reviewed in other related areas, such as fires and serious accidents.

2. Approval of Impending Safety Programs

Numerous programs originating with the Program Council are reviewed. Guidance is provided to achieve maximum benefits from timely promotion providing change of pace.

3. Approval of Non-Routine Expenditures

When programs of broad scope necessitate substantial expenditures for supporting material

and awards, concurrence of the council is requested.

4. Health Programs

Special programs, originating outside the department and relating to general participation, are evaluated. Policy is determined. These programs include tests for diabetes, county and plant mosquito control (sleeping sickness carrier), mobile blood donation, and protective clothing needs.

5. Current Problems

Items of general interest in need of action are reviewed. Examples are condition of plant highways and traffic control, railroad car switching procedures, and department safety rules.

6. Review of Reports and Recommendations

Accidents originating in CPD, other AEC contractors, and in GE are discussed for application in the department.

Originating and developing programs to create and maintain interest in safety is the objective of the Safety Program Council. Engineers, intermediate level managers, foremen, and supervisors from each of the nine functional operations make up the Program Council.

These people meet monthly and bring breadth of experience and a broad viewpoint to the council

table. They represent functions of Production, Research, and Engineering, Power and General Maintenance, Finance, Employee Relations, Facilities Engineering, and Manufacturing.

Programs are developed for each quarter of the calendar year. This system provides ample means for pre-program publicity, wide participation, and evaluation of accomplishments. Kinds of programs follow no set pattern but are styled to meet needs of the department. In 1957 the four major programs were: "Signs of Life," "Who's Who in Safety?" "Safety Meeting Participation," and "Eliminate Falls."

"Signs of Life" focused attention on the need to observe and comply with posted signs. Typical caution and warning signs were illustrated on two large marquee-type billboards at the entrance to each of the main plant areas. When not in use for program support, these boards feature safety slogans. Large green plastic letters and numerals are arranged on a glossy white background.

The Hanford GE News informed all employees of the scope of the Signs of Life program. A



PAYCHECK ENVELOPES are excellent safety media. The cartoon character, "Safety Sage," sets good examples in safety approaches and reaches all employees.



INTERESTING safety meetings can insure high attendance, and safe practices demonstrated in such meetings will bring greater retention. Here an experienced weight lifter shows maintenance men right way to lift.

printed circular, listing five typical signs of life, was sent to each CPD employee. To compete for awards each employee had to list an additional five signs of life evident in his or her work area. Each contestant stated in his own words which sign was most significant.

Completed entry blanks were discussed in safety meetings. Employees selected the best entry from their group to compete for the first prize, a \$25 savings bond. This elimination process took place in 123 separate safety meeting groups. Program Council members, acting as judges, selected the best paper from the 123 entries. Each of the 122 second-place winners received a small coin-key case. This type of competition stimulated on-the-job observation and thought about the value of signs.

The winner, a chemical process operator with 14 years service at Hanford, felt the most important signs of life to him "... warn me to save my eyesight and guard against bodily injuries. Living in a world of darkness or physical handicaps would be a poor substitute for happiness and job security that is ours for the price of being alert, careful, and

thoughtful before starting the job."

Other papers described the safety significance of such signs as Radiation Zone, Stop, Speed Limit, Danger—Do Not Operate, Protective Clothing Required, Caution, and many more.

The second-quarter safety program stressed the positive side of safety and safe practices on the job for preservation of self and fellow workers. Each employee acted as a self-appointed observer. A brief description of the safe act was jotted down and sent to the Program Council, usually without knowledge of the person performing the safe act.

The best "safe practice" entry was selected each month of the quarter and the writer was recognized as *Who's Who in Safety*. A Facilities Engineering draftsman designed an attractive scroll, countersigned by the general manager, the program council chairman, and the manager of health and safety. Sealed in lucite, the scroll was presented to *Who's Who* each month by the general manager. A large montage photograph showing the winner, act, and sponsor then was awarded to the winner at the close of the contest.

Recognizing that safety meetings tend to become repetitive and dull unless continually injected with diversity and employee participation, the Program Council selected this subject as the third program. Primarily a promotional program, council members offered suggestions for improving meetings. Recommendations included necessary elements of a good meeting, such as planning, proper facilities free from interruption, good acoustics, and use of visual aids.

In one meeting an employee demonstrated proper lifting by using barbells. A dummy, made from pieces of wood, canvas webbing, and a few screws, illustrated the effect on the back of proper and improper methods of lifting. Each member of the audience received a glass eye as a gift to emphasize need for eye protection. Panel-type meetings, patterned after *I've Got a Secret* and *The Price Is Right*, promoted safety.

Supervisors were requested to draw up schedules of all meetings planned for the quarter. Council members and representatives visited safety meetings. Recommendations for improvement were discussed with the supervisor. Information gathered during this program will serve as a nucleus for a Safety Meeting Package to be developed by the Health and Safety Operation for distribution to all supervisors.

The final program for 1957 stressed the need to eliminate falls. Four colored felt footprints separately lettered "Be Alert, Falls Hurt" were placed in hallways throughout the plant. Monthly bulletins describing types and cause of falls were distributed. Accidents resulting from falls in CPD and other parts of Hanford received publicity.

On-the-job inspection for fall hazards was recommended for all operations. A series of five 5-minute safety talks on "how to eliminate falls" was printed and distributed to all supervisors for use in safety meetings. Colorful cartoon characters of the Snuffy Smith variety added sparkle to messages on the two marquee boards.

During the falls program, CPD's

THE SIGNS OF LIFE quarterly safety program gets a boost on the plant signboards. These boards with changeable letters are used for special drives and for safety slogans.



EACH WORK AREA is inspected at least twice a year by each of four teams from the Accident Prevention Council. Hazards are brought to management's attention and follow-up is maintained.

Safety Sage made his appearance on employee paycheck envelopes. Wearing a hard hat, gloves, and safety shoes, Sage reminded employees that alertness is required to work safely.

CPD's bread-and-butter Accident Prevention Council constantly roots out accident-producing conditions. The group consists entirely of non-supervisory workers. Typifying a united effort to improve safety and working conditions, the unions and management share in selection of representatives.

This 12-man council functions as four inspection teams of three persons each. At monthly meetings members discuss conditions and formulate a report for wide

distribution. A safety and fire prevention specialist serves as chairman and secretary.

Each item is reported by a consecutive number. In 1957 a total of 170 significant items were reported. Many additional routine hazards were corrected. Management initiates prompt corrective action on receipt of the monthly report. Items requiring specific expenditures are handled by work requests or work orders and assigned number and date for follow-up.

In recognition of the Council's contribution to the department safety program the general manager recently presented a pin to each member. A green safety cross centers on a white enamel back-

ground of the bronze, 1¼-inch-diameter pin. "Accident Prevention Councilman" is on the outside edge. Council representatives usually participate in selection of prizes for safety awards. Each of the 1,600 employees frequently achieves awards.

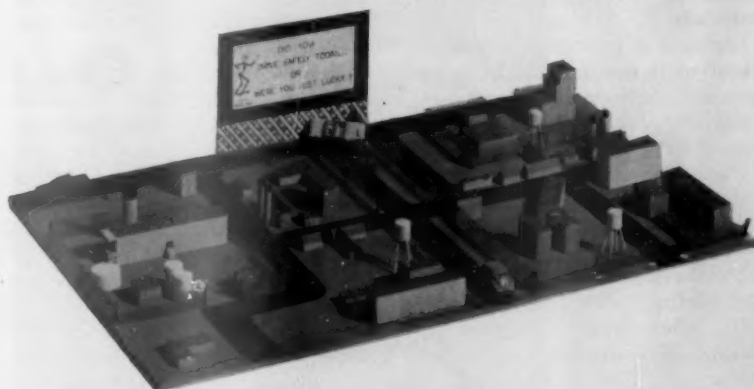
CPD has a safety record of only one disabling injury in more than 5,000,000 man-hours worked since Sept. 1, 1956. In 1957 CPD's injury experience was: medical treatment injury frequency rate, 1.95; disabling injury frequency rate, 0.30; and disabling injury severity rate, 10.19.

Hanford's safety award plan is administered on a department basis. Three separate awards may be won. Average man-hours worked per month determines the award class (or the number of consecutive calendar days which must be worked without a disabling injury).

Since September 1, 1956, each CPD employee has received two Safety Council awards and one HAPO General Manager's award.

On March 7, 1957, the National Safety Council acknowledged CPD with an Award of Merit and on February 8, 1958, with the top industrial safety award, the National Safety Council Award of Honor.

Teamwork and interest in the overall safety program are targets in CPD's theme for 1958, "Safety Is Our Most Important Practice."



VISUAL AIDS, like this one which was used to promote traffic safety, are devised by the Program Council, to emphasize aspects of the program.



FLUSHING removes grime from plant driveways and reduces dust. It should be repeated during non-freezing months. (Monsanto Chemical Company)



Spring Again . . . and Cleanup

**It's a good time to clean up indoors and out—
also to study the whole maintenance program**

FROM MARCH through May—depending on latitude and weather—clean-up weeks are held in plants, communities and homes. Fire and accident hazards and eyesores disappear—temporarily at least.

There's no room for argument with those who insist that housekeeping should be a continuous process—not just a spring spurt. But in planning the safety program, it helps to pick out some particular topic each month around which to plan activities. It just isn't possible to give all urgent problems the emphasis they deserve at one time. And there are many topics of seasonal interest and importance.

Housekeeping—which includes routine maintenance chores as well as seasonal clean-ups—means more than keeping aisles clear and getting rid of dirt. These are indispensable but they're just a start on a program of activities that affects every phase of operation—including accident prevention and occupational hygiene.

Although keeping clean is an

unending job, the impulse to freshen up gets a big boost in the spring, when Nature sets a good example. As days lengthen, winter accumulations of dirt and litter are more conspicuous.

Built-in-features. Modern plants are designed and built for easier maintenance—a term somewhat more inclusive than housekeeping. Engineers and architects plan ample space for work stations, passageways and storage, and better facilities for handling materials.

Lighting is improved, and more attention is given to facilities for personal cleanliness. Floors and walls are of materials which are easy to keep clean.

But safety work usually means making the best of things as they are, and many a safety man will have to worry along for some time with inherited working conditions. Remodeling, even on a limited scale, offers opportunities for making the maintenance job easier.

Changes of layout to permit more effective use of floor space,

mechanical equipment for handling materials, and better timing of material movement all should be included in the long-range maintenance program.

But the immediate job is to get the place spic and span, to take care of details, inside and outdoors, that have been neglected during the winter. It is also important to get employees interested in the cleanliness and appearance of the workplace, hoping that some of the influence of the campaign will carry over into succeeding months.

Help from outside. Maintenance and sanitation have gone scientific. Much research in cleaning methods has been conducted by associations and manufacturers of equipment and supplies. Representatives of these companies not only sell products but also instruct plant personnel in their effective use.

Trade associations, particularly those concerned with food processing, also have conducted extensive studies in sanitation. Covering a wider field is the Asso-

ciation of American Soap and Glycerine Producers. Its recent booklet, *Building and Equipment Sanitation Maintenance*, available from the Association at 75 cents a copy, is a valuable aid for any industrial or mercantile organization.

The recently-organized Institution of Sanitation Management now has chapters in some of the larger cities, where building superintendents and other maintenance officials can get together for study of these problems.

Whose responsibility? In some plants the cleanliness and sanitation aspects of maintenance are a function of the safety department. In larger plants, where duties are more specialized, the safety director usually has a definite part in the program. Where it is the job of some other department, a little tactful promotion by the safety director often can add vitality to activities.

The Program

Organization. If none exists or is not clearly defined, the first step is appointment of a supervisor, part or full-time, to carry out the program. He should have a reasonable allowance for labor, equipment, and supplies.

Department heads should be consulted on all problems involving their departments. The plant maintenance force can make an important contribution in upkeep

SYSTEMATIC MAINTENANCE

1. Establish standards for materials and equipment.
2. Standardize methods.
3. Train workers in use of standard materials, equipment, and methods.
4. Allocate work on the basis of an established time standard.
5. Inspect work for quantity and quality.
6. Maintain lists of approved materials and equipment, but keep the door open for new and improved products.
7. Prepare a maintenance and sanitation manual. It needn't be elaborate.

of equipment. That includes production machinery and the equipment used by the janitor force, such as ladders, floor machines, vacuum cleaners, etc.

Schedules. To make the program work, a routine must be established with itemized orders for regular cleaning of all sections of the plant and grounds. There will be daily, weekly, monthly, and quarterly chores for janitors, including the cleaning of sanitary facilities, floors, windows, lighting fixtures, etc.

Inspection. A routine also should be set up for periodic inspections. Check lists are essential. Those found in safety manuals

cover basic items, but each plant has its own problems, and these should be added to the list.

Put it on paper. Many larger plants have compiled maintenance manuals. These cover the plant by departments, listing specific problems, with cleaning and inspection schedules, products that have been found satisfactory, lists of suppliers, and techniques for various operations.

Such a manual can be produced economically by mimeograph and bound in looseleaf binders. It will be helpful in training and will result in more systematic and efficient maintenance.

Promoting the Campaign

With organization and procedures set up and personnel provided with equipment and supplies, work has just started. The maintenance staff and production employees must be kept on their toes. Order and cleanliness seem to be handicapped constantly by some very human traits.

To arouse and maintain interest, every medium of communication should be used. Here are some of them:

Bulletin boards. There is no lack of posters on housekeeping—from National Safety Council, insurance companies, and commercial services. Posters are most effective when supplemented by local material.

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REMOVING RUBBISH from the plant area is a basic activity in the housekeeping program. The advertising on the truck helps, too. (Diamond Alkali Company)



TRAINED FOR SURVIVAL

On skis and snowshoes, these snow surveyors have traveled 400,000 miles over rugged terrain without a fatality

By ROBERT T. DAVIS

EVERY winter more than 1,000 technicians of the Soil Conservation Service and cooperating local, state, or federal organizations head into the high mountains of the West to inventory the snowpack. These men travel by skis, snowshoes, over-snow machines, and aircraft.

This winter wonderland is sparsely inhabited in the winter. Snow surveyors know they are "on their own," but they can count on a shelter cabin for their

use at the end of the day. The cabin may be buried by deep snow, but the "Santa Claus chimney" will permit entrance. The cabins—266 of them, stocked with food and firewood—insure the snow surveyors will weather any storm.

Why make this snowpack inventory?

In brief, demands for water, especially for agriculture and industry, have increased enormously in the United States during the past generation. Improved standards of living and technical discoveries involving increased water usage in industrial processes and domestic supplies have greatly increased per capita use of

water. There are a growing number of areas where seasonal surface runoff in many years is less than demand.

All this has created a recognizable need for better management and utilization of the existing supply. Western water sources are mostly in the mountains. Water falls there as snow, and stays in cold storage, so to speak, until spring melt delivers it for use. The water stored in snow can be measured accurately and forecasts of the flow to come are made in advance of use. This sort of information allows water users to make many plans and pursue appropriate action within reasonable limits of confidence.

ROBERT T. DAVIS is Snow Survey Supervisor, State of Washington, Soil Conservation Service, U. S. Department of Agriculture.



AVALANCHES are a persistent threat to snow surveyors. This one has been triggered and the surveyors can continue on their way.

Foreknowledge of runoff, when dependable, makes possible better management of water supply. It reduces production costs, lessens waste, and conserves water and money. It has been rightly said: Water conservation begins at the snow course. Advance knowledge also encourages planning of protective measures prior to drought or flood.

A snow survey consists of a series of about 10 samples taken with specially-designed snow sampling equipment along a permanently-marked "snow course" line, about 1,000 feet long. The snow course is carefully located, as it must reflect an accurate sample of snow conditions over the area or watershed represented by the sample. Snow depth and water equivalent values are measured for each sampling point. The average of these values is reported as the snow survey measurement for a snow course.



NO CABIN tonight! But snow surveyors are resourceful. Here, A. R. Codd, SCS snow survey supervisor, Missouri River Basin (left) and the author hastily erect an overnight bivouac.

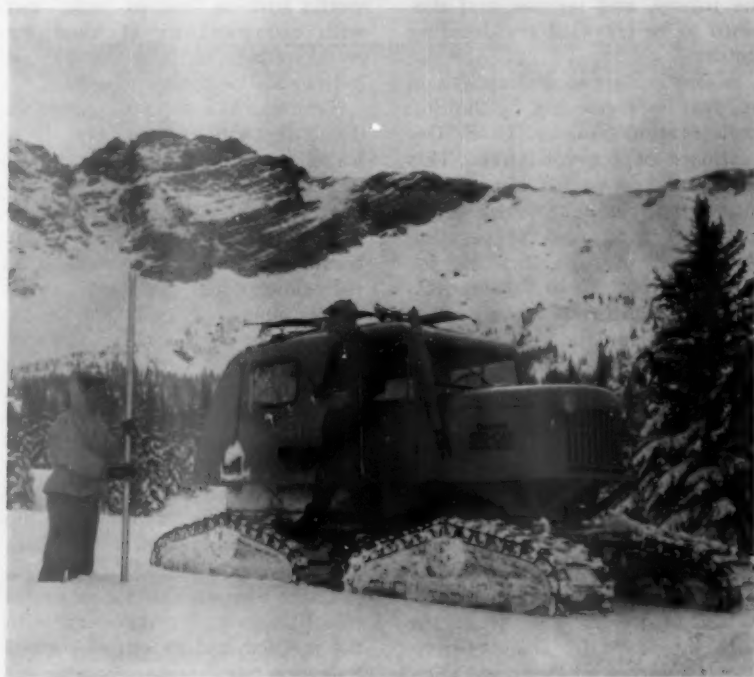
Biannual snow survey training courses are conducted throughout the West by the Soil Conservation Service. These rotating conferences train men in the theory and practice of snow surveying, preparation for winter travel, principles of conduct, first aid in the snow, avalanche avoid-

ance, search and rescue, skiing and snowshoeing, over-snow machine operation, and related subjects.

Technicians from many agencies attend these training courses to benefit from the experience of top-flight instructors. At a recent conference in Jackson, Wy., January 20-24, experts from 14 organizations assisted the Soil Conservation Service in teaching field snow surveyors. Those attending were primarily Service technicians, but trainees also were sent by organizations interested in snow surveys and resultant water supply forecasts or winter travel for telephone and power line maintenance, game checks or other purposes.

A main objective of these sessions is to enable men from the several states to instruct others. Finances limit the number of men that can be sent to these principal courses, so men that go later assist with the education of others at state courses. These latter studies last from 1 to 3 days, and from twenty to thirty men attend.

By use of intrastate courses, additional field men from cooperating organizations receive valuable training they would be unable to receive otherwise. Each man taught at state courses can coach his snow survey partner when



SNOW SURVEYOR pushes tube into snow pack to obtain snow sample.



they go out together on the next survey. In this manner information is passed on from man to man.

Safety and teamwork are keynotes during the entire program for field men—safety and teamwork in travel to and from the snow course by snowshoe, skis or over-snow machine; safety and teamwork in methods of snow sampling; and safety and teamwork in techniques of personal conduct and survival. Snow surveyors are taught to respect but not to fear the winter outdoors.

When on a snow survey, if adverse weather, snow conditions, or some mishap prevents snow surveyors from reaching their destination by dark, they are taught to bivouac in the snow, using materials at hand. Bivouacs can be of the lean-to type, snow cave, snow trench, or just an area cleared out under an evergreen tree. With a little ingenuity and common sense, a reasonably comfortable night or even several days can be spent in the snow without ill effect.

First aid is stressed at all training courses because of the hazardous nature of the work and lack of readily available professional medical services on the trail. Cuts, burns, sprains, and fractures are the most likely injuries. The fact that the men are out on snow surveys means the additional hazard of isolation and

cold. There is no doctor down the road to call on the telephone—there is no telephone. The snow surveyor alone can help his injured companion or himself.

If a serious injury occurs at or near a shelter, it will make the task that much easier. But if away from a shelter, decision must be made whether to build a bivouac and stay there, or build an emergency toboggan and take the injured person out. The nature of the injury, and terrain, and distance to be traveled are deciding factors.

A *Snow-Survey Safety Guide* has just been released by the Soil Conservation Service, U. S. Department of Agriculture. This handbook is a pocket-sized, fully-illustrated compilation of information ranging from "preparation for travel" through "first aid for snow surveyors" to "transportation of the injured."

In preparing the guide, a committee of snow survey supervisors worked with other snow survey experts, the American National Red Cross, and the Division of Employee Health, U. S. Department of Agriculture. This handbook is included as a part of all snow survey equipment, and snow surveyors are instructed to make themselves familiar with it. Available to any one from the Superintendent of Documents, U. S. Government Printing Office, its price is 40 cents.

CABINS stocked with fuel and firewood are located throughout the territory covered by the snow surveyors. The "Santa Claus chimney" looks strange in summer, but . . . without it, the men would have to dig through many feet of snow to reach the food and warmth of this cabin.



In snow surveying, as in most other jobs, teamwork is essential. A team of not less than two or more than four men makes up a snow survey party. Few men can go alone to a snow course, measure it, and come out with a high degree of safety. In case of accident, a one-member snow party would just be "out of luck," but with companions at hand, he could either be brought out or help could be brought back.

Teamwork also is essential in doing the job more safely. It is hard work "breaking trail." Through teamwork and alternation in trail-breaking each man gets relief while following in the tracks of his companion and is refreshed when his turn ahead comes again.

Snow surveys usually use three principal types of over-snow travel: foot, machine, and aircraft. All three require teamwork, although the method in which teamwork is used varies with circumstances. When surveyors get on the snow course, teamwork is the same in all cases when it comes to snow sampling.

There are six categories under which teamwork may vary with the method and extent of travel: Selection of proper equipment and its use, routes of travel,

check in and check-out, communication, organization, and preparation. A few of these categories, as they relate to the method of travel, will illustrate their importance.

For example, consider communication. The trail of the snow machine is a line of communication. The Soil Conservation Service is moving as rapidly as possible with available facilities to equip all over-snow machines with two-way radios. The same is true with the trail of the foot traveler, but the aircraft leaves no track.

It is the practice of some pilots who read aerial markers for snow depth to touch down at predetermined locations. This is done by making a pass down a large open meadow with the skis of the plane just touching the snow surface. In this manner a search plane can follow the route of an overdue aircraft and make contact with the downed party. Pilots are required to file a flight plan for all cross-country trips, indicating route and estimated time of arrival. This is their method of checking in and out.

Snow surveyors also file a type of "flight plan." Their plan consists of leaving word with a responsible person, stating when



TRAINEES receive refresher course in skiing at training conference.

they are leaving, where and which way they are going, and when they expect to return. Most important is the agreement as to how much time should elapse before they are to be considered overdue and a search started. This last point depends on many factors, such as terrain, method of travel, length of trip, and shelter available.

The Soil Conservation Service snow survey safety policy includes a provision that each man participating in snow surveys must have a physical examination annually, where the hazard warrants it. These personnel also are provided with the necessary field equipment to accomplish the job, whether it be skis and boots, snowshoes and pacs, or over-snow machines.

A few weeks ago Gen. G. C. Stewart, executive vice-president of the National Safety Council, commended the Soil Conservation Service and its cooperators in snow survey operations for an excellent performance and safety record. Gen. Stewart's letter has been sent to all snow survey co-operators. Replies received from a number of them indicate this safety record has resulted to a large degree from continued emphasis on safety and teamwork taught at snow survey training conferences across the West.



WITH IMPROVISED SLED, a snow surveyor begins the tough and solitary task of bringing his injured companion back to safety. RIGHT: Ski rescue sled constructed from injured man's own equipment.



How Toxic Are High Energy Fuels?

By WILLIAM H. SCHECHTER, Ph.D.

Boron compounds are being used increasingly in "zip fuels" and other applications. They are toxic but their hazards can be controlled

THE high energy fuels program about which so much has been written recently was developed to meet military needs for high performance aircraft.

By increasing energy per pound of fuel, a given-sized airplane can travel farther on the same weight of fuel. Instead of increasing range of a vehicle, the increased energy can be used to improve other performance factors, such as payload, size, speed, or rate of climb.

Review of possible types of high energy chemicals shows that hydrogen, beryllium, lithium, and boron compounds are the only ones likely to produce energies significantly superior to hydrocarbon fuels. Molecular hydrogen could be produced readily but, since it is normally gaseous, very low temperatures would be required to store it as a liquid. Even then, the density is too low to permit its use.

Beryllium is a more likely prospect, but it is scarce, extremely and insidiously toxic and probably should be conserved in the long run for atomic energy applications.

Dr. William H. Schechter is Vice President-Operations, Callery Chemical Company, Pittsburgh, Pa.

Lithium is in a similar situation except for toxicity, though it may find use in rocketry. Its use in conventional aircraft seems difficult and extravagant.

Boron-Based Fuels

Thus, boron is the logical element on which to base fuels. It is available in large concentrated deposits in the United States and has chemical properties which appear desirable from the chemical processing point of view. Fortunately, it forms more or less stable liquid compounds with hydrogen, the best chemical fuel.

Modification of boron-hydrogen molecules by addition of hydrocarbon groupings gives fuels of desired physical and chemical properties. As a supplementary benefit, boranes generally have wider ranges of flammability than hydrocarbons and consequently will allow operation of air breathing engines at higher altitudes than would be possible with conventional fuels.

Boron hydrides have only two obvious disadvantages for the applications intended. They are toxic (the aspect considered here), and their combustion products are not ideal.

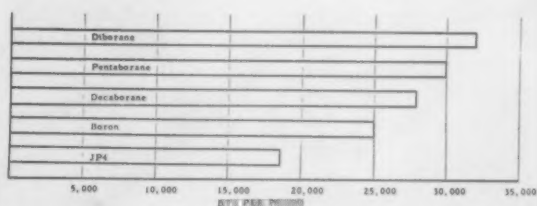
Mine Safety Appliances became interested in the possibilities of boron chemistry in 1946 and assigned a small group of scientists to investigate the chemistry of these compounds. Callery Chemical Company, of Pittsburgh, was formed as a subsidiary to continue this research.

The firm's initial assignment was a Navy contract to make the first production quantities of diborane and pentaborane for use as high energy fuels. Navy contracts during the next three years led in May 1952, to the major research program "Project Zip."

Subcontracts with 23 universities and 13 private research organizations, added to other efforts, enabled this company to produce HiCal, its boron-based high energy fuel, in pilot plant quantities in four years. Production of tonnage quantities will start with completion of two new plants.

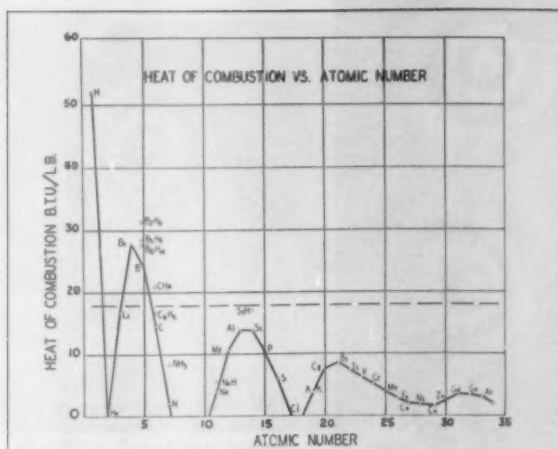
Difficulty is experienced in discussing toxicity of boranes in humans, because incidence of acute toxicity has been so low that clinical observations are negligible. Extensive studies of acute toxicity of boron compounds have been made on small animals. The mechanism of action by these compounds in the body is not

HEAT OF COMBUSTION OF BORANES AND JP4



PHYSICAL PROPERTIES OF BORANES

COMPOUND	NORMAL STATE	BOILING POINT	MELTING POINT	DENSITY
		$^{\circ}\text{F}$	$^{\circ}\text{F}$	g/ml
DIBORANE	COLORLESS GAS	-134	-264	0.430
PENTABORANE	COLORLESS LIQUID	+137	-52	0.61
DECABORANE	WHITE SOLID	+415	+211	0.94
HiCAL COMPONENT 'X'	COLORLESS LIQUID	500-550	-50	0.82



known, but in view of their chemical activity, as indicated by their physical properties and structure, it is easy to predict they could interfere with biological processes.

The most extensive studies have been made on diborane, which is gaseous at room temperatures. Main effect of breathing this gas seems to be damage to the lungs. Its toxicity often has been compared with that of phosgene.

Experiments have demonstrated that pulmonary damage is noted if a test animal is exposed at a concentration of about 5 ppm for 6 hours a day, 5 days a week. When the test is run at 2 ppm, similar damage is noted in a longer time. The American Conference of Governmental Industrial Hygienists (ACGIH) has adopted a maximum allowable concentration for daily exposure of 0.1 ppm. This is not a completely realistic value, as no method has been developed yet which can reliably detect that concentration. Diborane can be detected by odor only to 3 to 4 ppm.

Pentaborane, a volatile liquid, and decaborane, a solid, differ from diborane in that they attack the central nervous system rather than the pulmonary system. Decaborane also has been found to cause damage to the liver and kidneys. Symptoms of exposure to these higher boranes include loss of coordination, convulsions, weakness, tremors, and hyperexcitability.

The suggestion has been made that the symptoms are of two types because of differences in chemical reactivity of boranes.

Diborane is taken into the lungs, where it reacts rapidly with moisture and can cause immediate damage. Decaborane and pentaborane react with water much more slowly than does diborane, so they can concentrate in fats and lipids and have a more pronounced effect on the central nervous system.

Repeated 5-hour daily exposures to 3.3 ppm pentaborane causes death in test animals. Pentaborane and decaborane are more toxic than diborane, so the MAC's have been set at 0.01 and 0.05 ppm, respectively. Although pentaborane is toxic in lower concentrations than decaborane, the rate of recovery of rats from decaborane exposure is always slower.

The median detectable concentration by odor for man is 2.5 ppm for pentaborane and 0.35 ppm for decaborane. Pentaborane is said to smell like garlic or acetylene, and decaborane has an unpleasant or foul odor. Rapid olfactory fatigue adds to the hazard of using the sense of smell to detect these boranes.

Hazard Index

Work done on boron high energy fuel components demonstrates they have an order of toxicity between that of pentaborane and of decaborane. HiCal Component A, a major component of HiCal and the one studied most thoroughly, attacks the pulmonary and central nervous systems similarly to decaborane and pentaborane.

A convenient method for com-

RELATIVE TOXICITIES

	MAC (ppm)	Median Det. by Odor (ppm)	LC ₅₀ (Rats - 4 hrs.) (ppm)	Hazard Index $\frac{MAC}{LC_{50}}$
1. Diborane	0.1	3.71	80	25,000
2. Pentaborane	0.01	2.5	6.8	40,500
3. Decaborane	0.05	0.35	45.5	1.4
4. HiCal Component A			23	11.5
5. Hydrazine		69.83	570	33
6. Carbon Tetrachloride	100		23,900	6
7. Benzene	100		16,000	7.8

paring acute toxicity of compounds is the concentration necessary to kill 50 per cent of the test animals (LC₅₀). A more realistic measure of effective toxicity of such compounds is the Hazard Index, a function of both toxicity and vapor pressure. Using this index, decaborane and HiCal Component A are no more hazardous than many common chemicals, such as carbon tetrachloride, benzene, and hydrazine. This is due to their low vapor pressure at room temperature.

Detection of low concentrations of boranes has been a serious problem as has analytical work in general in the boron field. All modern analytical tools have been utilized on this problem: mass spectrometry, infrared and ultraviolet spectrometry, and chromatography, as well as techniques of radiochemistry. In spite of this analytical development effort there are still no commercial borane detectors on the market.

Mine Safety Appliances has two types of monitoring devices under development. One instrument is a small hand-operated device sensitive to pentaborane to about 0.4 ppm. This instrument is useful in detecting leaks and rechecking a location before normal operations are resumed after a spill. The other instrument, showing great promise, measures concentrations of boranes electrically and is expected to determine concentrations below 0.1 ppm, probably as low as 0.01 ppm. This instrument will be useful for continual monitoring of working areas.

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EAR protective devices on the market and those under development are tested at Wright Air Development Center. Here, Major Guild is conducting a test in accordance with the method recommended by the American Standards Assn.

Ears Can Be Protected

By MAJOR ELIZABETH GUILD

PERSONAL ear protectors available today can provide adequate protection against all noise fields to which persons in the military services and in industry must be exposed. However, much work is still required to insure regular and proper use of these devices.

What items are available . . . how good are they . . . what procedures will insure their being worn? These are some of the problems to be considered here.

All ear protective devices offered for sale and many still under development are evaluated at

the Wright Air Development Center. In the first phase of this evaluation, the item's ability to exclude or attenuate noise is determined by laboratory tests recommended by the American Standards Association.

In the second phase, those protectors which reduce noise well

are evaluated for "wearability." Included here are factors of the range of persons who can be fit-

MAJOR ELIZABETH GUILD is audiologist at Aero Medical Laboratory, Wright-Patterson Air Force Base, Ohio. This article has been adapted from a talk presented at the Fourth Annual West Coast Noise Conference.

If noise can't be suppressed at the source, personal protection is needed

- » What devices are available?
- » How good are they?
- » How can we get men to wear them?

Here's a summary of Air Force experience with these problems

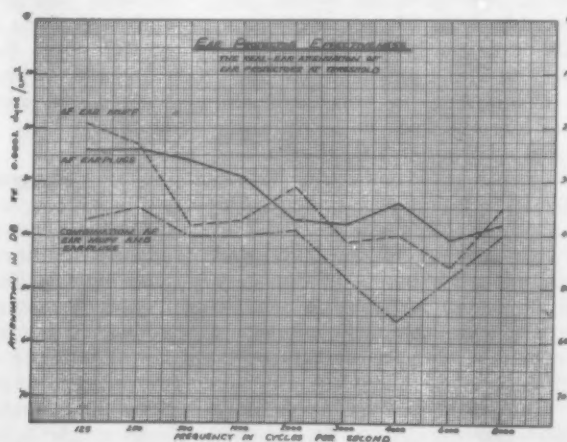


FIG. 4. Attenuation provided by Air Force devices properly fitted. Poor fit reduces protection.



FIG. 1. Standard Air Force ear plug (V-51R design). Most ears can be fitted properly with this device but many wearers require instruction on inserting and removing.



FIG. 2. Over-the-ear protectors are worn to supplement plugs during intense noise exposures. They are also used by those who cannot wear inserts. (Ear protector type PRU-1/P).



FIG. 3. Muff protector with earphones and microphone mounted in noise shield allows speech communication in noise levels up to 140 decibels. (Type H-133/AIC).

ted with available sizes, the ease with which many persons can put on and remove the device, its compatibility with eyeglasses, its bulk, ease of cleaning, cost, durability, and overall comfort. The best compromise among all these features is sought.

From the noise exclusion standpoint, a number of imperforate insert ear plugs are very good. Differences lie in ease of adaptability to a wide range of ear shapes and sizes. The World War II-designed V-51R ear plug remains the most versatile insert. Two additional sizes and elongation of the tab have added to its versatility.

Only a few ear configurations

cannot be fitted properly with the V-51R, but at least half of the wearers require special instructions on how best to insert and remove the plugs. Some persons, because of large, blunt fingers, no fingernails, or missing fingers, are not able to use the V-51R plugs.

Good supplements to the V-51R are hollow, bullet-shaped soft rubber or plastic plugs. These are easy to handle and are made in a large range of sizes but require a straight, open ear canal for satisfactory fit. The malleable plugs (cotton or sponge rubber impregnated with wax, or soft plastic rolls) will adapt to any ear. These plugs require kneading prior to insertion, especially

in cold climates, so they are unsatisfactory for those who get their hands dirty at work.

Although ear plugs are more convenient to carry and use for those who can insert and remove them easily, there is a requirement for over-the-ear protectors as well. In some cases they are required to supplement the plugs during intense noise exposures. Those who cannot use inserts (particularly persons having infections of the outer ear canal) need over-the-ear protectors whenever they are exposed to excessive noise.

The big obstacle to development of good noise-excluding, —To page 70

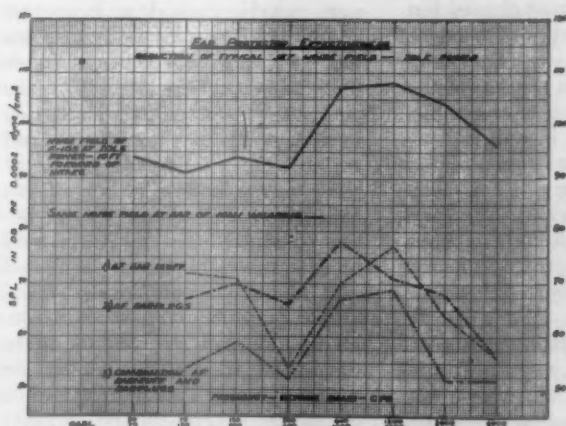


FIG. 5. Either muffs or plugs provide sufficient protection against jet aircraft noise at idle.

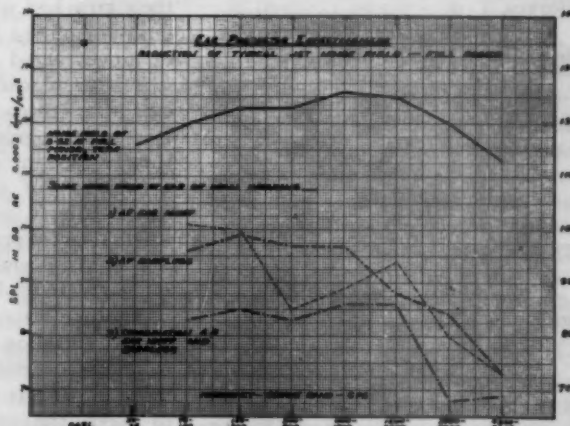


FIG. 6. For jet noise field at full power, the combination is needed for lengthy exposures.



Eye Conservation Needs The Nurse's Help

By MARGARET S. HARGREAVES, R. N.

In addition to treating injuries, the nurse can promote eye protection and discover many cases of poor vision

WHEN A COMPANY has full time medical direction, many of the nurse's responsibilities are lessened and her limitations more clearly defined. There are, however, many nurses in industry who have only a part-time or consultant physician to guide the medical service.

This nurse has responsibilities in five major areas of the vision program:

She must:

1. Plan and sell the vision program to management, supervision and employees.
2. Assist in establishing sound company eye medical policies and procedures.
3. Assist in providing adequate care with the use of ethical medical direction and modern techniques.
4. Help prevent eye injuries and diseases through proper testing, referral, and eye protection for employees.
5. Assist in educating employees in good eye health habits.

Many opportunities for introducing a good vision program have been lost because the program with its subsequent benefits has not been planned and presented properly to management. The nurse can help by:

1. Securing informed, intelligent advice.

MARGARET S. HARGREAVES, R. N., is Industrial Health Consultant, Forest Hills, N. Y. This article has been condensed from a paper presented at the Vision in Industry Section, 45th National Safety Congress.

2. Surveying the industry to point up eye hazards and the need for special visual skills.

3. Showing any examples where spoilage could be reduced through better vision.

4. Personalizing her examples, such as, showing instances where labor relations have been improved through better vision, or presenting from the monthly medical report specific cases where eye protective equipment would have prevented injury.

Vanity vs. Safety

I can remember one instance where a nurse was able to convince management that it was losing thousands of dollars in customer claims because an arbitrary company policy would not allow waitresses to wear glasses. They were proud of the eye appeal their girls had without glasses but ignorant of the fact that because of uncorrected vision hot soup was often placed in the lap of the customer instead of on the table. An eye program introduced by this restaurant chain resulted in prevention of many other accidents when some cooks and kitchen workers found to have impaired eyesight were referred for correction of these defects.

Another nurse was able to avoid a situation which threatened to become serious when an argument ensued as to who was going to have the window locations after a whole department was moved from one floor to another.

These employees were all piece workers and their livelihood depended on the work they were able to produce in a given time. Investigation by the nurse showed that the two who were complaining most bitterly needed visual care. When those two workers were fitted with proper glasses they were able and willing to perform their work in any part of the room.

A recent study of 1,107 industrial eye injuries showed that of 11 cases of glass fragments in the eye, 9 were caused by flying objects hitting regular spectacle glass which broke under the impact. One nurse showed this study to persons in authority in her company and was able to convince management that prescription safety spectacles were a good investment.

In still another case faulty vision nearly caused a long-time and faithful employee to lose his job. This man was a truck driver for a beer concern. After 15 years without an accident, he had three in a row, all of them costly and serious. He confided in the company nurse and told her of his concern over the possibility of being demoted to a lower-paid warehouse job. She persuaded him to have a complete physical checkup which was available to all employees. He was found to have some serious but correctable vision defects. This man has since completed three years without further accidents.

The industrial nurse must be

able to explain to management the difference between *testing* eyes and *examining* eyes. She should be able to explain the differences between the services of an ophthalmologist, an optometrist, and an optician.

She should upon request (if she does not have a plant physician) be able to direct management to the county medical society or a local accredited hospital so that consultation services and emergency eye care arrangements can be made with a competent ophthalmologist for service to the industry. More than one eye specialist should be available in case of emergency. An eye panel should be set up and approved procedures outlined and posted.

Delayed Treatment Costly

A leading eye specialist told me of a \$60,000 civil suit which is pending as a result of a claim by a railroad employee who had a penetrating injury of the eye. He was allowed to remain in the company medical department without proper care for three hours because adequate emergency arrangements had not been set up to handle such a case. He alleges that delay in treatment caused him to lose an eye.

In making an eye health appraisal to submit to management, the National Society for the Prevention of Blindness, the loss prevention department of the company's insurance carrier, the local or state health department, the Council on Industrial Health of the American Medical Association, and some private industrial health consultation firms may be called upon to assist.

Lighting, color contrasts, work methods, and work stations should be thoroughly studied as well as the more obvious hazards created by poor housekeeping, dangerous tools and processes, and other elements which could burn, injure, infect, or affect the eye. The employees' aging processes, visual requirements, and present seeing capacity should all be evaluated.

Once the vision conservation program is accepted by management, the next step is to draw up

Three-Stage Totem Pole

EVERYONE is hot these days for missiles, satellites, anti-missile missiles, space ships, anti anti-missile missiles, International Geophysical Year projects, and the like. Anything that is anything must have several stages to it.

A triple-stage debacle has been going on around us for years now—but no one raises an eyebrow. For example: If all the persons killed, mangled, and hurt on the job last year were placed end to end vertically, you would not only have the tallest totem pole of misery you ever saw but it could be classed as a three-stage extravaganza bigger than all the others.

Stage one would begin with the 15 miles of corpses of those killed at work—or stretching about four times as high as Vanguard II went before it broke up.

Stage two would take over for 100 miles of citizens with missing parts or disabled at work—approaching the nearest point of orbit of Sputnik I.

Stage three would cut in for 2,100 miles of those temporarily disabled at work. The top man on this totem pole would be able to spit down on Explorer I or Sputnik II at their farthest point of orbit.

You say, "What a stupid comparison." But, we've been blasting off and orbiting in similar fashion for years now—and without meaning to make a pun, 2,215 miles of such misery is "out of this world" no matter how you stack it or compare it.

If you prefer your miseries lying down, it would take over two days of steady driving just to pass this layout horizontally. And, assuming you made it without having a wreck, you could come back by way of some 6,170 miles of the same type of scenery caused by home (4,600 mi.) and motor vehicle (1,570 mi.) accidents. Our mightiest ICBM's won't range that far.

The theme song of the space experts is, "If it works, it's obsolescent." If you don't work safety into your orbit, you'll be obsolete!

—ROBERT D. GIDEL

company medical eye policy and procedures by which this policy can be carried out. In establishing a guide for procedures, statements of policy should be carefully worded to assure employees that job security is not threatened. All procedures should be approved by a consulting ophthalmologist.

It is not enough to state, for instance, that all persons with penetrating injuries of the eye must be kept lying down and must be placed under the care of an eye specialist at once. The method of doing this must be described, i.e., if the patient is to be taken to the physician, he must have a sterile eye bandage and must go via stretcher and/or ambulance if necessary.

It is not enough to say visual testing will be done as part of

the preplacement examination. The *method* of testing and what persons shall be permitted to test and what shall be done with the results must all be spelled out.

It is not enough to say, "Dr. ————shall be consulted about emergency eye care and examinations and treatments." Dr. ————should state what drugs shall be stocked, how special eye cases shall be treated, what follow-up care may be given, etc.

The third area of responsibility is where most of the limitations exist for the industrial nurse. In preparing this article, I interviewed several industrial ophthalmologists. They were unanimous in voicing the opinion that sometimes there were serious delays between the time the injury

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IDEAS THAT WORKED

Devices and Ideas to Help Your Safety Program

By Arthur S. Kelly, Industrial Department, NSC

Go, Go, Go

There surely is no limit to modifying basic ideas. We like the safety signal shown here. This is how it works:

The three lights are independent of each other. When the green light flashes, it announces "No accidents for at least three days," and the No Accident sign is up. A flashing yellow light indicates an injury requiring a doctor's attention and that light flashes for three days. A flashing red light indicates a disabling injury and the red flashes for three days.

It is reported that as soon as either the yellow or red light goes on, everyone inquires who was hurt and how. The talk turns to safety.

The original idea for this device belongs to Mr. Victor Hamilton, a maintenance mechanic at Kelco Company, San Diego, Calif. Mr. Hamilton also built it—mostly from scrap material. They figure a similar one could be built for about \$25 in any plant.

Submitted by J. C. Freedman, manager, Industrial Relations, Kelco.

WINNER FOR FEBRUARY

Winner for February was H. D. Liggett, senior foreman, Central Division, Ohio Power Company, Dennison, O. Mr. Liggett's idea was the "Don't Lose Your Tooth" wheel, a large replica of a rip saw blade with a tooth for each employee. The wheel is spun during each safety meeting, and the employee on whose name the wheel stops wins a prize. He wins, that is, if his name has not been painted out because he had an injury.



Safety Pledge

Ideas that work are limited only by one's imagination. There have been safety pledges for 40 years, but here's one with a prize twist. Below the pledge there are enough ruled spaces for every employee in the plant to sign his name—if he wants to.

In setting up this pledge idea, it was determined to award 30 prizes. Before the board was put up, a template was prepared with 30 sections, corresponding to 30 spaces or signatures on the board.

A period of one week was allowed for all employees to sign the pledge. At the end of that time the winner was announced by placing the template over that portion of the board where the signatures were written in. The prizes given were posted on the template directly above the cut-out portions.

This excellent promotional idea was submitted by H. V. Hodnick, safety engineer, Cleveland, Ohio.





Self-Locking Gate

This new self-locking gate for heavy-duty crane hooks was developed at the Torrance Works of U. S. Steel's Columbia-Geneva Steel Division. It was designed by Mr. Thomas Ramskill, open hearth maintenance foreman, shown on the left in the illustration, and Mr. E. J. Ahlstrom, supervisor of safety.

The self-locking gate consists of two parts:

1. A swivel collar with latch bar (forged from a solid piece of steel). The swivel collar is placed on the neck of the crane hook and can be moved only in a horizontal plane.
2. A weight-loaded latch lock which is fastened to the latch bar with a bolt. The latch lock moves only in a vertical plane. The latch lock is shown in a raised position just above Mr. Ramskill's right hand.

When the latch lock is raised, the entire unit (swivel collar, latch bar, and latch lock) may be turned out of the way to permit engaging and disengaging the load lift ring from the crane hook. When the latch lock is in the down, or locked position, the tip of the crane hook is held safely between the latch bar and the latch lock. The load lift ring is then secure within the cradle of the crane hook and cannot become disengaged.

Disc Grinder Guard



The disc guard shown was designed to prevent material being thrown back at the operator. Without this type of guard, pieces of material fall into the rotating wheel and frequently are thrown out again toward the operator. The disc guard can be adjusted as the grinding wheel wears.

Submitted by G. W. Foxhill, supervisor of safety, Crucible Steel Company of America, Harrison, N. J.



Hexed Circle

The area immediately outside any solid door can be a trap. At the Forest Products Laboratory in Madison, Wis., they marked the path of the doors outside their humidity room and served two purposes. In addition to highlighting the caution area, the unusual sign serves as a reminder to all employees that you just cannot forget personal safety.

Submitted by Seth Jackson, safety officer, U. S. D. A. Forest Service, Washington, D. C.

PRIZES FOR IDEAS

For the best idea printed each month, we will award \$15 worth of merchandise of the winner's choice from the NSC Incentive Catalog, or a personalized copy of the Accident Prevention Manual. Prizes totaling \$25 will go every six months to the best of the monthly winners.

Send a brief description with a photo or drawing to "Ideas That Worked," National Safety Council, 425 N. Michigan Ave., Chicago 11. Any idea, gadget, or home-grown invention that is preventing accidents in your plant is eligible.



(Fiction)

You can learn a lot, if you keep your mind and your ears open, our Safety Engineer finds. What he learned from this truculent youngster was enlightening—and rather embarrassing

The Trucker Is Sore

By BILL ANDREWS

April 2, 1958

The truck driver was 23, and there was surly defiance in his manner.

"Look," he said, "I can drive, and I know what's goin' on. I haven't got a single accident on my record. Those dumb guards ought to pick on some of the jerks who are really lousy drivers."

I checked the papers in front of me. What he said was true, as far as I could tell. He'd been working for the Cartage Company for six months, and he had had no accidents. There had been one arrest by a state trooper for speeding—45 in a suburban zone.

But the fact remained that he had received three warnings from plant protection men on the project grounds—one for speeding, one for running a stop sign, and another for careless driving—details unspecified.

I asked about the cases, and he had only this to say: "Them dopes don't know a good driver. They got rules in a book, and they got it in for me. I ain't hurt anybody, ain't even scraped a fender, so where's the beef?"

I did my best to explain patiently the reasons behind the rules. He just shrugged them off. Finally I said, "All right, if you can't follow our traffic rules, stay off our property."

"Can you make that stick?" he asked.

"You bet I can. You won't get past the main gate, if I say so."

He growled, "You know that means my job. You'd get me fired, just 'cause I won't knuckle under to your rules."

I said, "I can't fire you, but maybe the Cartage Company will, if I bar you from the project. But I don't do it for the sake of rules. I'm responsible to keep accidents down, and the rules are designed to keep you and other people from getting hurt. You come on to the project with a 2½-ton truck and drive recklessly. I know that can kill somebody. So I've got to say: drive like we say or don't drive here."

He looked at me, still angry, still sullen. "Okay," he said, "I guess you can make it stick. I need the job. But if it wasn't for that, I'd take you out and show you some things I don't think you know about driving on your damn plant roads."

"Why don't you show me, anyway?" I asked.

"Dammit, I will. Get your hat, big shot, and I'll show you up."

He gunned his truck out of the parking lot in fast acceleration, but he watched his speedometer and levelled off the speed just at the limit. He headed right out the main gate, swung over on the

shoulder, made a U-turn and came back to the gate.

Just beyond it he stopped and said, "Come with me," and got out of the truck. "Here's where I got that ticket for careless drivin' from your flatfoot. See the guard room there? The door's about three feet from the curb. I came in and made a sharp right turn, just like I did now. I was way over to the curb to make room for a semi coming toward the gate. This guard, he musta just come out the door and was lookin' over east at somethin'. So I come up behind him, and I can't see to the right too good, havin' just made the turn. He pretty damn near walks in fronta me, and I goes by with a lotta noise in second, and he thinks I almost brushed him. He jumps a mile straight up and comes down boilin' mad.

"That's how I got the ticket, and I was going just about 10 miles an hour, and I was in the roadway. If them guards don't watch it comin' out of that little house of their's, one of them will get clipped sure, and you'll blame some truck driver."

After that we turned north and drove toward the Mangenot plant. Right now there are three-quarters of a mile of road with nothing on either side. The road's posted for 15 mph. The driver said,

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POWER LAWN MOWERS

Published by National Safety Council
425 North Michigan Avenue, Chicago 11

1. The prevention of accidents and injuries involving power lawn mowers requires that safety be built into these machines when they are manufactured and that rules for their safe operation be developed.

2. The purpose of this data sheet, therefore, is twofold: to suggest various ways in which safety can be built into power lawn mowers and to set up safe operating practices to serve as a standard.

3. The hazards of power mowers have been demonstrated by an alarming increase in the number of accidents involving these machines. Since available data indicate that more accidents occur in the use of rotary power mowers than with reel and sickle mowers, the precautions discussed here apply primarily to rotary mowers. In most cases, however, they also apply to reel and sickle mowers, whether electric- or gasoline-powered.

4. Accidents have involved both operators and persons nearby. People have been struck by flying sections of cutting blades that have broken off and by stones, pieces of wire, and other foreign materials which the blades have picked up and thrown. Operators have also suffered injuries to feet and hands from contact with revolving blades.

This Data Sheet is one of a series published by the National Safety Council, reflecting experience from many sources. Not every acceptable procedure is necessarily included. Data Sheets should not be confused with American Standard Safety Codes, federal laws, insurance requirements, state laws, rules and regulations, or municipal ordinances.

Design Features

5. Power lawn mowers should be well designed, should have good balance, and should be well constructed. Hazardous revolving parts should be covered with

built-in guards. The sides should be completely enclosed, and securely mounted front and rear guards should be provided. Openings in the guards should be only large enough to permit ejection of the grass.

6. There are two or more types of blades in general use. One is the single or one-piece blade. Another is a three-piece or sickle section blade. To minimize the danger of pieces of the blade breaking off, the blade should be made of steel of a hardness and having carbon content, grain direction, and heat treatment qualities prescribed in metallurgical



Figure 1. Rotary mower guard made of rust-resistant straight-link chain "fringe." Such guarding—on the front and rear, with solid sides—prevents debris from being thrown from the mower. (Courtesy Ohio State Department of Highways)



Figure 2. The operator should take time to go through the manufacturer's instructions to familiarize himself with the mower. (Courtesy Panhandle Lines, Panhandle Eastern Pipe Line Co.)

specifications for steel put to this use.

7. Shafts attached to one-piece blades should be equipped with a slip clutch or shear pin which will prevent shearing of the blade and the shaft if the build-up of grass becomes too great underneath the guard. Also, with such an attachment, the mower will be less likely to throw foreign objects.

8. It is important that the sickle section blade have tempered tips. Each tip should be fastened to the main blade or disk not only by a rivet, but also by a large center bolt, which will retain the tip if the rivet breaks. An aircraft-type steel bolt with a self-locking safety nut should be used.

9. One method is to use an extra heavy tip, properly tempered

and mounted with a $\frac{3}{8}$ -inch center bolt, plus a self-locking nut and one rivet. Another method is to use small blades on a disk, which are mounted free by a collar attachment and forced out for cutting by centrifugal force. This type will deflect in the opposite direction from the direction of travel upon striking a heavy object.

10. The handle of the mower should be long enough so that the operator cannot pull the mower back onto his feet. If the mower has a reversible handle, it should be equipped with stops which the operator can engage at will.

11. The wheels should be large enough to give easy operation over rough or uneven terrain.

12. Engines on rotary power mowers which have direct drive should be governed not to exceed

a maximum of 3,800 rpm while operating under no-load (idling) conditions.

13. Mowers should be equipped with a positive "on-off" switch for cutting off (as well as sustaining) the ignition or power supply.

14. Electric extension cords and electric motors should carry the approval of a recognized testing agency.

15. Provision should be made for the installation of a ground wire on electric-powered mowers, if the manufacturer has not made it an integral part of the power cable.

16. Safety recommendations developed by the manufacturer for the operation and maintenance of a power mower should be included in the instructions which accompany each power mower sold.

Operating Precautions

17. It is important that power mowers of good quality be selected for use. Gasoline-powered mowers with recoil starters are relatively easy to start.

18. The manufacturer's recommendations for operation and maintenance should be followed completely and should be considered standard operating procedure.

19. If an electric-powered mower does not have a ground wire as a standard part of the machine, grounding can be effected by securing one end of a wire to the motor housing and the other end to a water pipe or similar positive ground near the supply outlet. The added ground wire must be several feet longer than the power cable and should be wrapped around it or taped to it to prevent entanglements. The cable and ground wire should not be frayed or worn, and the male plug should be maintained in good condition.

20. Even though a grounding arrangement has been provided, it is advisable not to use an electric-powered mower when it is raining or when the grass is wet or when the mower is wet or damp from any cause. If the mower is known to be in a defective condition, it should not be used until it is properly repaired or replaced.

21. Motors should be kept free from accumulations of grass, leaves, or excessive grease. An accumulation of these combustible materials could result in a fire or could damage the motor and working parts of the mower.

22. Before a mower is put into operation, the area to be cut should be cleared of all obstacles such as rocks, stones, pieces of wire, sticks, or other debris.

23. The mower should be started on firm, clear, level ground. The operator should maintain a firm grip on the mower and should stand to one side when starting it. He should give full attention to operation of the mower.

24. When cutting heavy, tall grass or heavy weeds, the operator should proceed slowly to avoid choking the mower or stalling the motor.

25. The mower should be set at the highest cutting point when being operated on rugged or uneven terrain, to prevent it from accumulating or ejecting an excessive amount of debris.

26. Hills and banks should be cut sidewise instead of up and down. This method will prevent the operator from losing control over the mower and having it slide into him.

27. The cutting path should be kept clear of all persons and animals. While a power mower, particularly a side-expulsion or blower-type, is in operation, nobody but the operator should be allowed near it.

28. The operator should not reach under the deck, the chain guards, or the belt guards of the

mower until the motor is stopped and the power source disconnected. He should also keep his hands, feet, and clothing away from moving parts. To better protect the operator, such parts should be enclosed by guards.

29. The mower should not be adjusted, no attempt should be made to remove objects from it, nor should attachments ever be changed until the motor has been turned "off" and is in no danger of being started. On electric mowers, the power should be shut "off" at the source.

30. Before work is done on the underside of a gasoline-powered mower, the spark plug wire should be disconnected and the engine allowed to cool. A hot engine could start of its own accord if the mower blades were turned. The mower should be tipped by means of the handle.

31. A power mower should never be left running when unat-

tended. There have been numerous injuries resulting from unauthorized persons attempting to operate power mowers left unattended and running.

32. Liquid fuel should be stored in tightly sealed containers of a type approved by Underwriters' Laboratories, Inc. The containers should be kept outdoors in a shed or a garage—not in the basement or utility room of a house.

33. An operator should not refuel a liquid-powered mower while it is hot, running, or in a closed area, nor while he is smoking.

34. Under no circumstances should children, including young teenagers, be allowed to operate power mowers. An older teenager should be thoroughly instructed in safe and efficient operating procedures before being permitted to run one of these machines.



Figure 3. The operator should stand clear of the mower when starting it. He should keep a firm grip on a gasoline-powered mower while pulling the starter cord. (Courtesy Panhandle Lines, Panhandle Eastern Pipe Line Co.)



Figure 4. Fuel should be stored in a well-marked, approved container. The gas tank of the mower should be filled outdoors after the motor has been turned "off" and the spark plug wire disconnected. (Courtesy Panhandle Lines, Panhandle Eastern Pipe Line Co.)

Personal Protection

35. Operators of a power mower should wear heavy close-fitting trousers and brogue-type shoes or, preferably, steel-toe safety shoes. Operating a power mower while wearing loose-fitting clothes or open-toe shoes, or while barefoot, is inviting injury.

36. It is strongly recommended that power mower operators also wear safety glasses. Accident data show frequent occurrence of eye injuries from flying objects.

Maintenance

37. Mowers should be allowed to cool and should be cleaned before being stored.

38. A systematic schedule for inspecting mowers and for lubricating all moving parts should be observed.

39. One-piece blades on rotary mowers should be removed periodically, resharpened and repainted. This procedure will cut to a minimum the possibility of the blades becoming severely unbalanced.

40. Whenever a blade is badly damaged from striking a rock or other heavy object, the blade must be either reground and properly balanced or replaced with a new blade.

41. It is advisable to have only experienced mechanics or power mower servicemen make repairs on these machines.

ACKNOWLEDGMENT

This data sheet was prepared by Joseph S. Brodecki, Jr., Safety Engineering Department, Lumbermen's Mutual Casualty Company, Atlanta, Ga. Appreciation is extended to the following for their assistance: Harold K. Howe, Executive Secretary, The Lawn Mower Institute, Inc., Washington, D. C.; Richard H. Peters, President, The Ricman Manufacturing Company, Inc., Atlanta, Ga.; Robert P. Kelly, M. D., Chief of Sections of Orthopedic Surgery, Emory University School of Medicine, Emory University, Ga. Content has been extensively reviewed by members of the National Safety Council and representatives of chapters of the American Society of Safety Engineers. The data sheet has been approved for publication by the Publications Committee of the Industrial Conference of the National Safety Council.

Shut off and disconnect power of mower before clearing machine of debris.

Mow in daylight hours only, unless you have good artificial light.

Shut off and disconnect power of mower before moving it from one level to another.

Be certain of your footing and balance, especially when mowing on an incline.

Check your mower regularly for dangerous functioning and worn parts.

Don't leave the mower unattended while it is running.

Don't use the mower when the grass is wet and slippery.

Don't refuel the mower while it is running or still hot from use.

Don't allow children or pets in the mowing area.

Don't lift or tip the mower while it is running, especially if it is a rotary-blade mower.

Don't reach into the engine or blades while the engine is running.

Figure 5. Rules for safe operation of power lawn mowers.



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IF THERE can be an irreducible minimum in the number of industrial accidents, that goal seems within the reach of the Minnesota and Ontario Paper Company (Mando).

The company's specialty paper and fibre board mill at International Falls, Minn., won National Safety Council awards for its industrial safety achievements in 1954 and 1955.

And Mando has bettered that unprecedented record in 1956.

Last year the company's accident frequency rate was 0.86—85 per cent below the national average of 7.24 for the pulp and paper industry, and the best record posted by any company in this classification. In 1955, its award-winning record was 1.41.

How did Mando establish these records?

Company officials give equal credit to the safety committee



LOCOMOTIVE CRANE equipped with a boom catwalk in the pulpwood storage landing. Before the installation of this catwalk, workers either had to walk to the end of these long piles of pulpwood or ride the bucket. Both were dangerous practices. Now, the boom is lowered on a suitable spot on the pile and workers can proceed safely to the ground.

operations within their plants and to accident prevention representatives from Mando's insurance carrier.

"Mando won these National Safety Council awards because a

couple of thousand men practiced the safety measures preached by experts in our own safety division and by the accident prevention department of Employers

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TWO SMILING safety engineers—M & O's Eisenach and Employers Mutuals' Russ Hammond—view 10-year accident frequency record showing 94.2 per cent improvement.



SAFETY DIRECTOR D. L. Eisenach (right) of M & O demonstrating a hard hat that undoubtedly saved a life. Looking on at left is Ella Howard, R.N., head nurse.



INFORMATION FOR SAFETY DIRECTORS

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BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

National Safety News, April, 1958

HERE are ways you can get *extra value* for your purchasing dollar. These modern products, which bring new safety and efficiency to your operations, are made possible by Du Pont Chemicals used in their production.

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FOUR TYPES of awards are given by the National Safety Council to industrial members in recognition of outstanding performance in accident prevention:

1. **THE AWARD OF HONOR** is available (a) to units which complete 3,000,000 man-hours without a disabling injury, and (b) to units whose records, though not perfect, meet vigorous standards of excellence. These standards take into account the previous experience of the unit as well as the experience of the industry in which it operates. A unit must qualify on both frequency rate and severity rate.
2. **THE AWARD OF MERIT** has similar, but less exacting requirements. Minimum number of injury-free man-hours needed to qualify is 1,000,000.
3. **THE CERTIFICATE OF COMMENDATION** is available only for injury-free records covering a period of one or more full calendar years and totaling 200,000 to 1,000,000 man-hours.
4. **THE PRESIDENT'S LETTER** is available for injury-free records covering a period of one or more full calendar years and totaling less than 200,000 man-hours.

Details of eligibility requirements may be obtained by writing to the Statistics Division, National Safety Council.

AWARD OF HONOR

AVCO Manufacturing Corp., Licensing Division, Stratford, Conn.

American Radiator and Standard Sanitary Corp., San Pablo Plant, San Pablo, Calif.

Bestwall Teed Products Corp., Bestwall Gypsum Plant, Sigurd, Utah.

Convair, Astronautics, Key Number 65, San Diego, Calif.

E. I. du Pont de Nemours & Co. Five awards: Chambers Construction, Deepwater Point, N. J.; Hotel du Pont, Wilmington, Del.; Office Building Division, Wilmington, Del.; Philadelphia Grasselli Plant, Philadelphia (Chemical Acids); Philadelphia Grasselli Plant, Philadelphia (Plastics Materials).

Ethyl Corp., Baton Rouge Plant, Baton Rouge, La.

Firestone Tire and Rubber Co. of India, Ltd., Bombay, India, Plant.

Flight Propulsion Laboratory, Evendale, Ohio.

Ford Motor Co., Buffalo Stamping Plant, Buffalo, N. Y.

General Electric Co. Three awards: Chemical Processing Dept., Richland, Wash.; Instrument Dept., Lynn, Mass.; St. Louis (Mo.) Lamp Plant.

General Electric Co., Specialty Transformer Dept., Fort Wayne, Ind.

Goodyear Atomic Corp., Portsmouth, Ohio.

Hanford Laboratories, Richland, Wash.

Hercules Powder Co., Inc., Radford Arsenal, Radford, Va.

Hughes Products, Los Angeles.

Kennecott Copper Corp. Two awards: Nevada Mines, McGill, Nev.; Ray Mines, Ray, Ariz.

Northern States Power Co., Minn., S. Dak., N. Dak., Wis.

Pickands Mather & Co., Erie Dock Co., Cleveland, Ohio.

Sinclair Refining Co., Marcus Hook Refinery, Marcus Hook, Pa.

Southern Natural Gas Co., Birmingham, Ala.

Standard Oil Co., Marine Dept., Chicago, Ill.

Union Asbestos & Rubber Co., Plant 5, Marshville, N. C.

Union Carbide Nuclear Co., Y-12, Oak Ridge, Tenn.

Union Oil Co. of Calif., Automotive Dept., Los Angeles.

United States Rubber Co., Ball Band Plant, Mishawaka, Ind.

U. S. Steel Corp., National Tube Div., McKeesport, Pa.

Weyerhaeuser Timber Co. Two awards: Klamath Falls (Ore.) Branch; Sales Co., St. Paul, Minn.

Western Electric Co. Two awards: Allentown (Pa.) Works, and Kearny (N. J.) Works.

AWARD OF MERIT

Aluminum Company of America. Two awards: Cleveland (O.) Works and Refining Division, Mobile, Ala.

American Can Co., Pacific Plant, San Francisco.

American Radiator and Standard Sanitary Corp., Stamping Plant, Buffalo, N. Y.

Amertron Co. Two awards: Red Springs (N. C.) Plant and Robbins (N. C.) Plant.

Argonne National Laboratory, Lemont, Ill.

Atlantic Refining Co., Philadelphia Refinery.

Avco Manufacturing Corp., Arlington Street Plant, Cincinnati, Ohio.

Bestwall Gypsum Co., Sigurd, Utah, Plant.

British American Oil Co., Ltd., Quebec Division, Toronto, Ontario.

Cummins Engine Co., Inc., Columbus, Ind.

Curtiss-Wright Corp., Electronics Division, Carlstadt, N. J.

Dan River Mills, Inc., Division No. 2, Danville, Va.

Day and Night Manufacturing Co., La Puente, Calif.

Diamond Gardner Corp., Oakland (Maine) Plant.

The Dow Chemical Co., Madison (Ill.) Division.

Ford Motor Co. Six awards: Canton (O.) Forge Plant, Dearborn (Mich.) Assembly Plant, Dear-

—To page 67

COOLEST COMFORT

under the Sun



H506... Brown leather and Nylon mesh ventilated upper, oak leather sole, rubber heel.



H508... Brown leather ventilated upper, oak leather sole, rubber heel.



H509... Tan grain leather ventilated upper, oak leather sole, rubber heel.

H522... Brown grain leather ventilated upper, Neoprene Air Cushion Saf-Tred Crepe sole and heel.

Also
H531... Black

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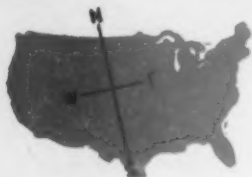


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AROUND THE COMPASS



ACTIVITIES • PROGRAMS • EVENTS

By Nils Lofgren

Field Service Department, NSC

Devin Heads Seattle-King

Former Seattle Mayor William F. Devin has assumed the presidency of the Seattle-King County Safety Council, a post held by a radio station executive during 1957.

Devin accepted the president's gavel from John L. King, secretary-treasurer of the Queen City Broadcasting Co. (KIRO), during the Council's annual dinner Feb. 27. During the same affair, the Safety Council honored King County Superior Court Judge James W. Hodson for the work he has done in accident pre-

ident and also has been a trustee since the Council's birth.

Dr. Henry Schmitz, University of Washington president emeritus, told the 300 attending the banquet that the Colman award was devised to recognize the accomplishments of those whose activity in accident prevention work has been of an outstanding nature.

Devin, also a long-time member of the Council's board of trustees, was a former Seattle traffic judge. He was mayor of the city for several terms. He currently is senior partner in a Seattle law firm.

work, the *Richmond Times-Dispatch* said, in part, "His enthusiasm for his job, his voluntary assumption of additional duties, and the fine impression he has made on the public in general, won for him Monday night the first annual Sherwood Reeder Memorial Award. This is the award given in memory of Richmond's first city manager 'to promote and encourage faithful, efficient, and dedicated public service'."

Minneapolis Holds 17th Conference

The 17th annual Occupational Safety Conference of the Greater Minneapolis Safety Council is currently under way in Minneapolis.

Evening sessions were held on Jan. 20, Feb. 26, and March 18. The final session will be on April 23.

Speakers at the general sessions are Dr. J. L. Rosenstein, assistant director, The Management Center, Marquette University, Milwaukee; E. E. Wyland, assistant vice president, Mountain States Telephone and Telegraph Company, Denver, Colo., and Dr. Charles E. Irvin, consultant in sales, management development, communications, East Lansing, Mich.

Mississippi Launches Program

A statewide safety program was launched in Mississippi Thursday, January 30, when the 34-man board of directors of the Mississippi Safety Council met in Jackson with fifty business leaders from all sections of the state to lay the groundwork for the Council's program for the coming year.

Governor J. P. Coleman met with the group at the luncheon

Judge James W. Hodson, (right) accepts the Kenneth Colman Safety Award from Colman (left) and Dr. Henry Schmitz, president emeritus of the University of Washington. Hodson became the first recipient of the award during the Seattle-King County Safety Council's annual dinner. He was a founder of this chapter and has served as its president.



vention since the Seattle-King County chapter was formed in 1932.

Judge Hodson became the first recipient of an award named after Kenneth Colman, a well-known Seattle citizen who also has been a leader in the safety field for many years. The initial award represented work done since the Council was organized, but in future years the plaque will be given for safety activity for the previous year.

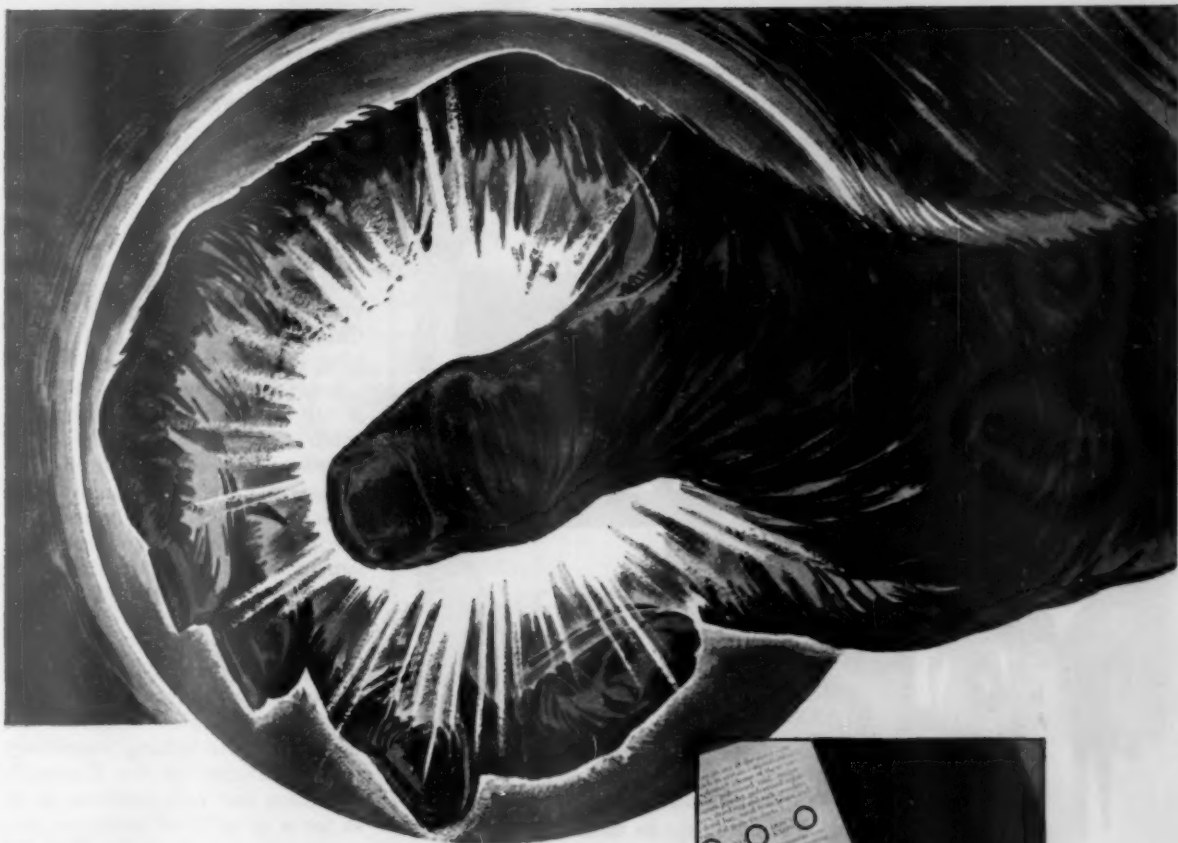
Judge Hodson was a member of the group which organized the chapter, has served as its pres-

Richmond Officer Given Recognition

James T. Wadkins, managing director of the Richmond (Va.) Area Safety Council, reports that a Richmond traffic officer assigned to school safety has received special recognition for his contributions to the community.

Police Sergeant Julius R. Johnson has responsibility for supervising all crossing guards and safety patrols for all schools in the city.

In an editorial commenting on Sergeant Johnson's outstanding



How to STEAL THE THUNDER from an explosion

Flame-tight containment of electrical sparks is a *must* in explosive atmosphere of vapors, gases or dusts. Checking your plant for possibilities of an electrically-ignited explosion should be a routine precaution — but never simply that.

Between routine checks, your safety picture may change drastically: Process or equipment changes may bring air-suspended explosive materials into an area not explosion-proofed. Equipment once regarded as safe may now be inadequate. Partial protection may exist where full protection is assumed.

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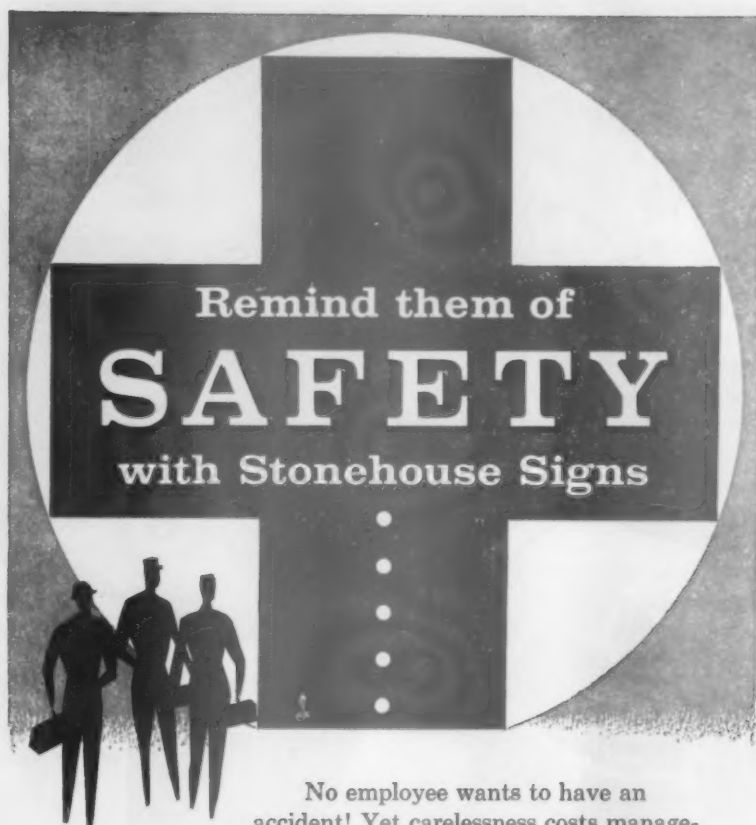
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No employee wants to have an accident! Yet carelessness costs management and labor thousands of days of production and millions of dollars each year. Frequent reminders—particularly in places where accidents can easily happen—keep employees alert to danger and cut costly accidents. These reminders, made often and inexpensively by bright, easy-to-read signs, are an important step in an effective safety program for your company.

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Circle Item No. 14—Reader Service Card

session in the Edwards Hotel, and expressed his intense interest in seeing the Mississippi Safety Council become a full-fledged safety organization, operating in all sections of Mississippi and carrying on a competent education program which will reach every man, woman, and child in the state.

Mr. Owen Cooper, executive vice president of Mississippi Chemical Corporation, Yazoo City, and vice chairman of the Council, presided and told the group that a successful safety program in Mississippi will be realized only when a number of business leaders seriously consider their responsibility and give the Council moral and financial support. He stated he felt confident that sufficient funds will be forthcoming within a few weeks to enable the Council to set up permanent quarters and employ a full-time staff. Mr. Cooper stated the Mississippi Manufacturers Association is furnishing temporary staff assistance to the Council's operation and will continue to do so for a short time until the permanent quarters of the Council are established.

The Council's Board of Directors elected its new officers for the coming year as follows: Mr. John Underwood, general plant manager, Southern Bell Telephone Co., president; Mr. Owen Cooper, first vice president; Mr. Rex I. Brown, chairman of the board, Mississippi Power & Light Co., Jackson, second vice president; Mr. Otho Smith, partner, F. W. Williams State Agency, Meridian, secretary; and Mr. Louis Wise, manager, Four-County Electric Power Assoc., Columbus, treasurer.

Inter-Industry Gives \$20,000 for TV Series

A grant of \$20,000 by the Michigan Inter-Industry Safety Committee will finance production of a television series on driver education on local stations throughout Michigan.

Produced by the Highway Traffic Safety Center, the series uses a panel-type quiz format to give viewers an idea of how driver education in Michigan high

—To page 96

Circle Item No. 15—Reader Service Card

National Safety News, April, 1958

Solutions to safety problems do not come out of a briefcase. You're aware of this, talking with an MSA Sales Engineer. His big service to you is something you can't catalog and file, and carry with you in a briefcase.

His full-time job is safety. He has an intimate knowledge of the hazards of the industries he serves. He's backed by the nation's largest Research Laboratory, devoted entirely to safety. He's been to school—safety school—MSA's own, and one of the most thorough and practical safety schools, anywhere. And his recommendations for your safety problems? Always unbiased, because he can draw his solutions from the complete line of over 3600 MSA safety items. So call in the MSA Man.

His job is to help you.

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THE SAFETY LIBRARY



**Books, pamphlets and periodicals of interest
to safety men**

Compiled by Ruth Parks, Librarian, NSC

Protecting the Plant

Practical Plant Protection and Policing, by B. W. Gocke, M. A., published by Charles C. Thomas, Springfield, Ill. 1957. xi plus 149 pages. \$4.50.

THIS BOOK is well written and easy to read. It contains 11 chapters, bibliography and index. Some of the chapters are: Personnel Control, Theft Control, Watch and Guard Control, Plant Safety, Protective Lighting, Organization for Fire Protection, Organization for Emergency, Security Surveys, and Wartime Security Problems.

The book is of value to any industrial management interested in curbing activities that drain profits. A good security organization as outlined and discussed in this book is the best insurance for any plant against loss of lives and property from fires, thefts, and accidents.

The chapter on Organization for Fire Protection is most informative not only for the large plant executive but for the small plant operator. Fire has no respect for the size of a plant.

The Plant Safety chapter is excellent for any plant where there is no safety engineer or safety director in charge of the safety program. In such cases the plant manager must give more of his time to safety of his employees—to a safety program. Plant guards can play a most important part in the safety program in a small plant. This chapter discusses the role of the plant guard in the safety and security program of small plants. Check lists and facsimiles of report forms could have been used to advantage in this chapter.

The chapter on Security Surveys is an excellent analysis of an industrial plant to determine the present security status. Here

NEWS INDEX READY
The Index to the **NATIONAL SAFETY NEWS** for July-December, 1957 (Vol. 76) is now available. Address requests to: The Library, National Safety Council, 425 N. Michigan Ave., Chicago 11.

too, check lists could have been used to enhance the book's usefulness.

This book certainly would be an asset to anyone, especially in a small plant, who is charged with the security and safety of property and personnel.

J. C. KATO

Business Communication

Automation in Business Communication, by Robert E. Moore. Published by Vision Incorporated, National Foremen's Institute, New London, Conn. 146 p., price \$3.95 plus postage.

"UNTIL a machine is found that will put thoughts into written words, management will place a high value on the man or woman who can communicate successfully through reports and memoranda," says Chapter I of this book.

Certainly, safety men depend heavily on communication to get



"Why can't your boss get regular hard hats like the other contractors do?"

their ideas across to management and men. Techniques for each audience, however, are quite different. Management wants facts, well organized and clearly presented—not gimmicks to attract attention.

Suggestions for preparing reports and memoranda are summarized in seven steps:

1. Determine the purpose and subject of the report.
2. Direct the report to a specific reader or group of readers.
3. Gather all available information and supporting data before starting to write.
4. Outline your report—organize your material, prepare a synopsis.
5. Plan to illustrate your report verbally and graphically.
6. Write it clearly, objectively, and concisely.
7. Criticize and edit your own reports.

BOOKS AND PAMPHLETS

Aeronautics

CAA Statistical Handbook of Civil Aviation. Civil Aeronautics Administration. 1957. 135p. 60c. Superintendent of Documents, Washington 25, D. C.

Handbook for Aircraft Accident Investigators. Prepared by the U. S. Naval Aviation Safety Center and issued by the Office of the Chief of Naval Operations. Superintendent of Documents, Washington 25, D. C. 1957. \$1.50. NAVAER 00-80T-67.

Elevators

Supplement to Safety Code for Elevators, Dumb-waiters and Escalators A17.1-1955. American Society of Mechanical Engineers, 29 West 39th St., New York 18. 1958. 18p. ASA A17.1a-1957.

Health

A Guide to The Evaluation of Permanent Impairment of the Extremities and Back. Committee on Medical Rating of Physical Impairment. *Journal of the American Medical Association*. Special Edition, Feb. 15, 1958. American Medical Association, 535 N. Dearborn St., Chicago 10. 112p.

Mines

Design and Testing of Bureau of Mines Pneumatic Coal Planer. U. S. Bureau of Mines, Publications Dis-

—To page 104



HILLYARD FLOOR CARE saves half the Labor!



DON'T PLAY HIDE-and-SEEK with DUST...
once over gets it with *Hillyard* **SUPER HIL-TONE**

Super Hil-Tone has a special property (called AD-SORPTIVE action) which attracts and holds dirt. After you sweep, a thin protective film is left on the floor. This film attracts particles of germ laden dust as they are brought in, holds them much as a magnet holds nails.

Superior attraction of Super Hil-Tone in the sweeping mop draws up all these particles, quick and clean. Sweeping does not stir up dust. None settles back on the swept floor. Daily dust-up is fast, simple, thorough. The mop literally glides over the surface—no drag, no fatigue.

The Hillyard "Maintainer®" shows you how to take advantage of modern labor-saving treatment techniques and short cuts. He's your own trained floor care specialist, "On Your Staff, Not Your Payroll"



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And—Super Hil-Tone's non-oily film left after sweeping actually protects the floor's finish, makes it last longer—helps bring out to the full the rich, natural sheen of the flooring and its finish.

The big opportunity to save money in floor care is NOT in the pennies spent for materials. Rather, it's in the dollars that go for labor. Super Hil-Tone can help you save real money, by making sweeping a "walk-over". Here is still another proof of the axiom, *Economy in floor maintenance never comes from cheap materials.*

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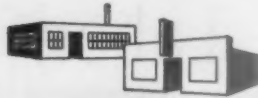
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SMALL BUSINESS and ASSOCIATIONS



By A. M. Baltzer and John T. Curry

Small Business Program Staff, National Safety Council

President's Conference Highlights Associations

Workshop E, "Expanding Safety Through Organizations," at the recent President's Conference on Occupational Safety featured speakers representing associations, insurance companies, labor organizations, and local safety councils.

Glenn B. Sanberg, executive vice president, American Society of Association Executives, Washington, in discussing "Leadership and Direction," said that there are 12,000 associations representing 3,000,000 employers, and continued, "if we were to harness one hundredth of the potential in this vast group, we could reduce the terrible cost of accidents, both in money and manpower, by one-half—overnight." He points out that hundreds of thousands of businessmen annually attend some 75,000 meetings of associations, and he cited examples of how accidents could be virtually eliminated if 10 per cent of the time in these convention programs were devoted to accident prevention.

P. L. Siemiller, general vice president, International Association of Machinists, Washington, speaking on the subject, "Cooperation and Participation," said, in part, "the National Safety Council is often called the organized safety movement of America. We do not disagree with that descriptive term. It appeals to us in organized labor. We hold that improvements in wages and working conditions are possible only through organization. And we think that progress in promoting safety also depends upon organization. That's why we are glad to be accepted as partners in the National Safety Council, and that's why we are cooperating and participating in its activities."

Clyde Schlueter, accident prevention manager for Employers Mutuals of Wausau, in discussing the subject "Technical, Informational, and Other Services," said, "it is much simpler to use such existing channels of communication between individuals or companies with common interests, than to attempt to establish other means of accomplishing this." He went on to list thirteen services and activities which associations could use to promote safety for their members.

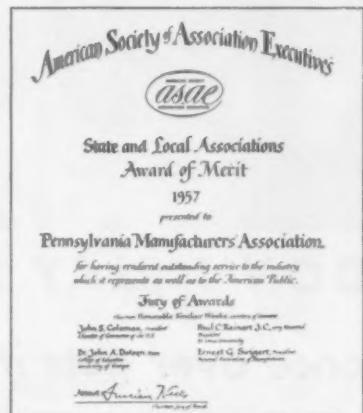
Albert Roistacher, assistant general manager, National Association of Bedding Manufacturers, Washington, discussed "Evaluation—Determining the Need," and reported that a survey made by NABM disclosed 945 disabling injuries, over 14,000 man-days lost production per year, and accident costs in excess of \$4,000,000, with injury rates in the smaller companies five times as high as in the largest member firms. He went on to say, "with solid facts like these to support us, there was no longer any doubt about the need for an association safety program in our industry. We started one promptly, have been operating it ever since, and today consider it one of our important activities."

H. F. Reinhard, manager, Safety Codes Department, Union Carbide Corp., made a statement which seems to summarize the discussion of the panel. "An organization is in a uniquely favorable position to render a safety service to its members: it knows the heads of its member companies, it has their confidence, it knows their problems, it can get them together, it can form committees, and in most cases a safety program can be developed to fit all or most of its members. This is especially true of organizations serving a single industry."

Association Uses NSC Posters

John J. Riley, secretary of the American Bottlers of Carbonated Beverages, announces the launching of a safety program for the billion-dollar soft drink industry.

To help stimulate members, and to give a tangible service, the ABCB recently ordered 24,000 safety posters from the Council. At monthly intervals, 3,000 posters will be sent to member plants; half on plant safety, half on vehicle safety.



Safety Wins Award for PMA

The Pennsylvania Manufacturers Association won the ASAE award merit "for its industrial safety program." The ASAE points out that the PMA has rendered valuable safety service to 9,400 members, most of which have fewer than 50 employees. Credit also was given to PMA for enlisting the active assistance of 40 affiliated local associations.

Congratulations to John Seeton, PMA's safety-minded secretary, who is also a member of our Small Business and Associations Committee.



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gets down to the root of problem fires!

The deep-seated dump or peat fire is a problem faced by many cities and towns. It's an unpleasant, often very expensive problem requiring weeks of work to extinguish. Your town is probably no exception — but you can use exceptional products to extinguish deep-seated fires — the Rockwood Bayonet Piercing Applicator and Rockwood WET. The Rockwood Bayonet Applicator helps you pierce through top layers of debris and get at the heart of the fire. Rockwood WET, a wetting agent, increases the fire extinguishing action of water — making a little water go a long way. And Rockwood WET retains its penetrating action even at high fire temperatures!

With this fire-fighting team you save water, time and quickly control smoldering fires.

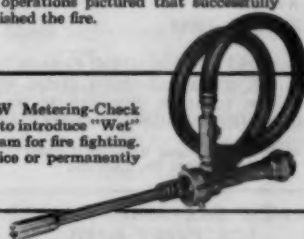
There are good reasons for you to investigate Rockwood WET and Rockwood Bayonet Applicator. So why not fill in the coupon below and let us send you full information?

Photo strip on left shows (1) Rockwood Bayonet piercing applicator ready for use (2) Rockwood Educator and Wet feeding wetting agent solution to Bayonet Nozzle (3) Bayonet being inserted at fire location (4) Bayonet partially inserted; note, steam rising from rubble (5) wet water reaches deep seated hot spot causing steam eruption and ground depression (6) Final steam cloud as hot spot is extinguished.



Earl C. Griffith, Chief of Fire Department, of East Providence, Rhode Island, was in charge of the operations pictured that successfully extinguished the fire.

Rockwood's All-Purpose new FW Metering-Check Valve and Educator was developed to introduce "Wet" or FOAM Liquid into a water stream for fire fighting. It can be used as a portable device or permanently installed on a fire truck.



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1000 Tablets in Experiment Dispenser	112
500 Tablets in Bulk Carton	113
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Circle Item No. 18—Reader Service Card

OFF THE JOB

Safety programs for
plant and community

Why the Interest in Off-the-Job Safety?

By W. E. McKELDIN

STATISTICS indicate the seriousness of the off-the-job safety problem and the need for something to be done about it. The question then is: "Why should industry be interested in off-the-job safety?"

We all have seen newer phases of industrial safety spur safety experts into action that has eliminated or minimized serious hazards and unhealthful conditions. The subject of off-the-job safety, however, is peculiar in that industry has been well aware of the problem for many years but has been slow to fully realize the value of increasing its interest.

Perhaps industry has wanted to clean its own back yard first or, possibly, there has been a certain degree of reluctance on the part of industry to become involved in employees' private lives.

The foreman on the floor could have told us many years ago that his production suffers just as much when an employee is injured off the job as when he is injured on the job, and that more employees are injured off the job.

In the past few years industry has come to realize the benefits waiting to be reaped by increasing interest in off-the-job safety. There is not another area of safety in industry in which more returns can be realized for every unit of effort and money spent.

Essentially, the advantages are identical to advantages of on-the-job safety programs.

The first phase of our task in exploring the field of off-the-job safety is to sell ourselves and other management personnel on need for interest in off-the-job safety. Convincing points, or

W. E. McKELDIN is Safety Supervisor, Westinghouse Electric Corporation, Philadelphia, Pa.

By Harry C. Johnson

NSC Staff Representative
OTJ Safety Committee

sales weapons, can be summarized:

I. Increases production.

1. Reduces absenteeism due to injury to the employee or his family.

2. Lower labor turnover.

3. Reduces number of partially incapacitated employees producing less upon return to work.

4. Lessens amount of defective work by the substitute employees.

5. Decreases work load placed on supervision.

II. Reduces costs.

1. Lowers insurance costs, which many companies now partially or fully assume.

2. Diminishes overtime costs.

3. Brings down training costs.

4. Cuts costs in departments such as medical, employment, and training.

5. Reduces on-the-job accident costs. Off-the-job safety complements on-the-job safety programs.

6. Lessens cost of rehabilitation.

III. Displays industry's interest in humanitarian efforts.

1. Reduces pain and suffering.

2. Enhances welfare of the community.

3. Trains future employees and leaders of industry.

4. Improves employee relations and morale.

5. Promotes employee and family good will and interest in the company.

Undoubtedly there are many additions that could be made to this list.

Industry currently cooperates with or participates in Red Cross; civic affairs; community welfare; local, state, and federal projects; and other efforts. With an increased wave of vigor industry adds its interest in off-the-job safety.

An employee injured off the job can hold up production just as long, can send costs just as high, and has the pain and suffering of the injured just as severely as when the accident occurs on the job.



S-4359

Thom McAn's cool basket-weave safety shoes give hot feet a holiday!

EVER SEE such cool, sporty-looking safety shoes before? These are the safest, *coolest* working shoes in existence!

They're the result of many demands for cooler, *airier* safety shoes. Shoes to keep feet comfortable *without* sacrificing safety in any way.

The upper is made of soft pliable leather, specially perforated for maximum ventilation. The air is let in—dust is kept out.

Of course, this shoe has all the regular Thom McAn safety features. Leather-lined steel toe box. Cushiony Nitro-crepe sole and heel.

Find out more about these and other Thom McAn safety shoes. Make use of Thom McAn's terrific service to buyers. Mail coupon below and get whatever information you need by return mail.

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Thom McAn Safety Shoe Division, 25 W. 43 St., N. Y. 36

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- ☐ Address of nearest Thom McAn Safety Shoe Store
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A Division of Melville Shoe Corporation

Reduce Lost Time Accidents, Cut Disability and Improve Morale, with a Scott Demand Inhalator



Indispensable to your Dispensary



Reduce pain and old victims of heart ailments with oxygen.



Relieve shock in accident cases by oxygen inhalation.

In heart and asthma cases — for victims overcome by smoke, fumes and gases — for accident shock victims, you may speed recovery if your first aid equipment includes a Scott Demand Inhalator.

Oxygen treatment administered quickly can be of tremendous importance. Scott Demand Inhalators can be put into operation in seconds. No adjustments of pressure or flow are required. Safe and easy to use. Special training is not necessary. Oxygen flows at rate and volume required by patient, and when needed — the added help of slight positive pressure, with the touch of a button.

Take steps now to be ready for that next victim. Let us send you complete information. Write us today or contact your nearest Scott Distributor.

If there is Breathing Difficulty —
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Voice of the Reader

Let's have your views on current topics. You don't have to agree with us

Enforcement Needed

KINGSFORT, TENN. In answer to Mr. J. J. Moore's letter in the January issue, I believe it should be education, engineering, and enforcement, rather than education and engineering *versus* enforcement. Any person engaged in preventing death and destruction should use every tool at his command.

Enforcement, of course, is not the only tool but it is a useful one. Education and engineering are extremely important, but they won't do the job alone.

Experience has shown that no amount of engineering can make it impossible for man to have accidents. Nor will education change the habits of all people. Strict and impartial enforcement of our traffic laws will deter many people from violating common sense rules of safety. Many towns and states have shown that such enforcement will save lives, and that should be the goal of every safety engineer.

I don't believe anyone would advocate substituting enforcement for education and engineering, but it should be used along with the other two. Enforcement can sometimes keep people alive long enough to be educated.—R. L. TAYLOR.

Back Injuries

KALAMAZOO, MICH.—I have read with interest the report by the Committee on Interpretations concerning the definition of a back injury in ASA Z16.1 in the January News. I am glad the committee was realistic in reviewing the cases submitted and has stated new definitions in determining reportability.

In our experience, however, the committee is ruling out legitimate cases, such as those involving simple stooping or bending to pick

Air Casualties

It's bad air that does it. But you can step up production by putting a Coppus Blower on the job to keep the air moving — and keep the men cool.

The kind of air a man works in has a lot to do with how much work he can turn out.

In confined places like shipholds or tanks or drums or boilers . . . or wherever the air is stagnant or hot or full of fumes . . . a Coppus Blower is a *must* for getting first-class work out of the men, all the time.

A Coppus Blower or Exhauster helps avoid sickness and lassitude due to bad air . . . and improves morale, too.

Portable and adaptable for special purposes, Coppus Blowers and Exhausters will have dozens of uses around your plant. The "Blue Ribbon" (a blue painted band) is your assurance of quality performance at lowest cost.

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BLUE RIBBON BLOWERS



THE BLOWERS THAT PUT MORE WORKERS TO WORK

CABLE MANHOLE AND TANK VENTILATORS — BOILER MANHOLE BLOWERS AND EXHAUSTERS — HEAT KILLERS — SHIPHOLD VENTILATORS . . . DESIGNED FOR YOUR INDUSTRY — ENGINEERED FOR YOU

MAIL THIS COUPON To Coppus Engineering Corp., 124 Park Avenue, Worcester 2, Mass. Sales offices in THOMAS' REGISTER. Other "Blue Ribbon" Products in BEST'S SAFETY DIRECTORY.

PLEASE SEND ME INFORMATION ON SUPPLYING FRESH AIR TO MEN WORKING:

- ☐ in tanks, tank cars, drums, etc.
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- ☐ in aeroplane fuselages, wings, etc.
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- ☐ on steam-heated rubber processes.

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- COOLING:**
- ☐ motors, generators, switchboards.
- ☐ wires and sheets.
- ☐ general man cooling.
- ☐ around cracking stills.

- ☐ exhausting welding fumes.
- ☐ stirring up stagnant air wherever men are working or material is drying.
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You can easily keep your grounds free of weeds! To destroy vegetation, and prevent regrowth for a full season, you need only apply new UREABOR. It's a convenient, concentrated, ready-to-use chemical in dust-free granular form for DRY application at rates of 1 to 2 lbs. per 100 sq. ft. Small areas may be treated by hand. For large areas, special spreaders are available in hand-operated and power-driven models. To learn more about this safe, nonvolatile, nonflammable and noncorrosive weed killer for industry—write!

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UREABOR IS A "20 MULE TEAM" BRAND PRODUCT



Circle Item No. 22—Reader Service Card



SPARKY says:
Don't give FIRE
a place to start!



up a scrap of paper, ducking under an obstruction, or preparing to lift.

It is unfortunate that a high-speed camera was not aimed at such victims of real back misery. Without doubt, clues would be obtained that would throw much light on body-mechanics failure. It would reveal unsymmetrical bending, sudden movement, unbent knees, twisting, etc., which competent persons would recognize as contributing to back pain.

We have also discovered that most of these accidents occur the first thing in the morning or after rest periods. Cold muscles are taut. The baseball pitcher wears a jacket between innings to avoid muscle strain. Many of our back cases occur in midsummer after the victim has slept uncovered by an open window or has sat out in the cool damp night air after exercise.

It is suggested that this line of thought be forwarded to the committee for their further action.

At Upjohn, it is our philosophy to get to the root of these back mysteries to plan preventive steps. If back cases do not need to be reported, it is doubtful whether much thought will be given to them.

—J. A. STONE, Safety Engineer,
The Upjohn Company

Unguarded Gears

CHICAGO. When one of my associates saw the cover of the March NEWS on my desk, he said, "Keep that away from me. I don't want to get caught in that set of unguarded gears."

I realize that such covers are largely symbolic, but you are likely to receive a number of comments like the above. You could have handled the drawing in just about the same way we did on *Safety Zone Digest* which we distribute to supervisors in all plants we insure.

When this publication was originally designed, nothing was considered for the train of gears which was symbolic of the machinery exposure in industry but I plumped for a standard guard for them. I think the artist did a very nice job.

National Safety News, April, 1958

—JOHN M. SANDEL, *Research Engineer*
Zurich Insurance Company

LOSS OF LIFE in occupational accidents has decreased from 17,000 to a little more than 14,000 a year in the past 15 years, according to a Statistical Bulletin of the Metropolitan Life Insurance Company as quoted by Public Health Reports published by the U. S. Department of Health Education and Welfare. (January 1958.)

In the past 15 years workers in the Petroleum Industry have reduced by more than two-fifths their fatality and total permanent disability rate. The rate for all departments combined dropped from 31.9 to 18.0 per 100,000 between 1939-41 and 1954-56. Part of the improvement is attributed to technological advances.

Several of the more hazardous industries have likewise made noteworthy progress in lowering fatality rates. Among coal miners the rate has decreased from 230.6 to 166.7 per 100,000 in the past 15 years. The lumber and electrical industries appear to have reduced their rate by approximately one-third during the same period.

Much remains to be accomplished, particularly in industries which have lagged in safety progress, the report points out. In addition to the 14,000 lives taken annually, 2 million workers are injured in occupational accidents.

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made for lasting service from a choice of materials in accordance with American Standards Association Specifications for Industrial Accident Prevention Signs Z 35.1 - 1941

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SUSTAIN A LOAD
OF

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DANGER
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Wire

—From page 17

In response to inquiries about hazards which may be involved in the transportation of nuclear weapons, the Department of Defense and the AEC jointly announced "with assurance" that the possibility of an accidental nuclear explosion in the process of transporting or storing such weapons "is so remote as to be

negligible." In the event of such accident, key U. S. military commands and AEC establishments have teams especially trained and equipped to decontaminate the area involved.

The Chemical Industries Committee of the International Labor Organization adopted a resolution recommending that basic training of chemists, engineers, and technicians should include instruction in safety and health.

Aviation Safety. In a statement prepared for a Congressional Committee, the Air Force's Director of Flight Safety Research, Maj. Gen. Joseph D. C. Caldara, said that since 1950, Air Force accidents have resulted in 5,599 aircraft being destroyed, 2,764 pilots being fatally injured and 1,260 pilots receiving major, non-fatal injuries, but that the 1957 rate was an all-time low of 13.6 per 100,000 hours of flying. However, although the rate has decreased, the per cent of major accidents which are fatal has increased to 23 per cent owing to higher performance and greater speed of aircraft.

Although 1957 had the lowest rate in history and the smallest total number of accidents, the financial losses from Air Force accidents increased by 10 per cent over the previous year, to a total of \$470,000,000. The largest single cause factor was pilot error, although substantial improvement is being shown in this respect. The Air Force has developed a substantial accident prevention program.

The annual reports of various governmental agencies deal with different aspects of aviation safety. The CAB reported that in the fiscal year 1957 it had heard and disposed of 534 cases relating to safety and enforcement, with 226 cases remaining pending at the start of the new fiscal year. Both the Air Coordinating Committee and the Federal Communications Commission addressed themselves, in part, to tall TV towers as a hazard to air navigation.

An agreement between broadcast and aviation interests, approved by the Air Coordinating Committee, stated that towers over 500 feet should be grouped in "antenna farms," away from the air lanes. There are already in operation 52 towers over 1,000 feet, with 37 more in prospect. The agreement provided that the FCC seek legislation to require that abandoned radio towers continue to be painted and lighted, and that the Department of Commerce draft legislation to give it authority over the erection, loca-



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Safety

ENGINEER'S BOOT

WALK
DAY AFTER DAY...

IN *Protected
Comfort*

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5-INCH ENGINEER'S BOOT

Black, made from triple tanned cowhide, with full leather toe lining, Dacron stitching, neoprene sole and neoprene logger heel. Patented Armorite steel toe and corrugated steel shank.

Comfort is a tradition in English shoes — comfort that only the English can take time to hand-craft into walking shoes. Here is an oxford of beautiful design, made on American lasts, with features found only in the most expensive dress shoes. These quality leathers are at home on the street, in the office, or in the plant. These smart Scotch Grain Wing-Tips are rugged and almost scuff-proof.



ENGLISH OXFORD

No. 990 — Black

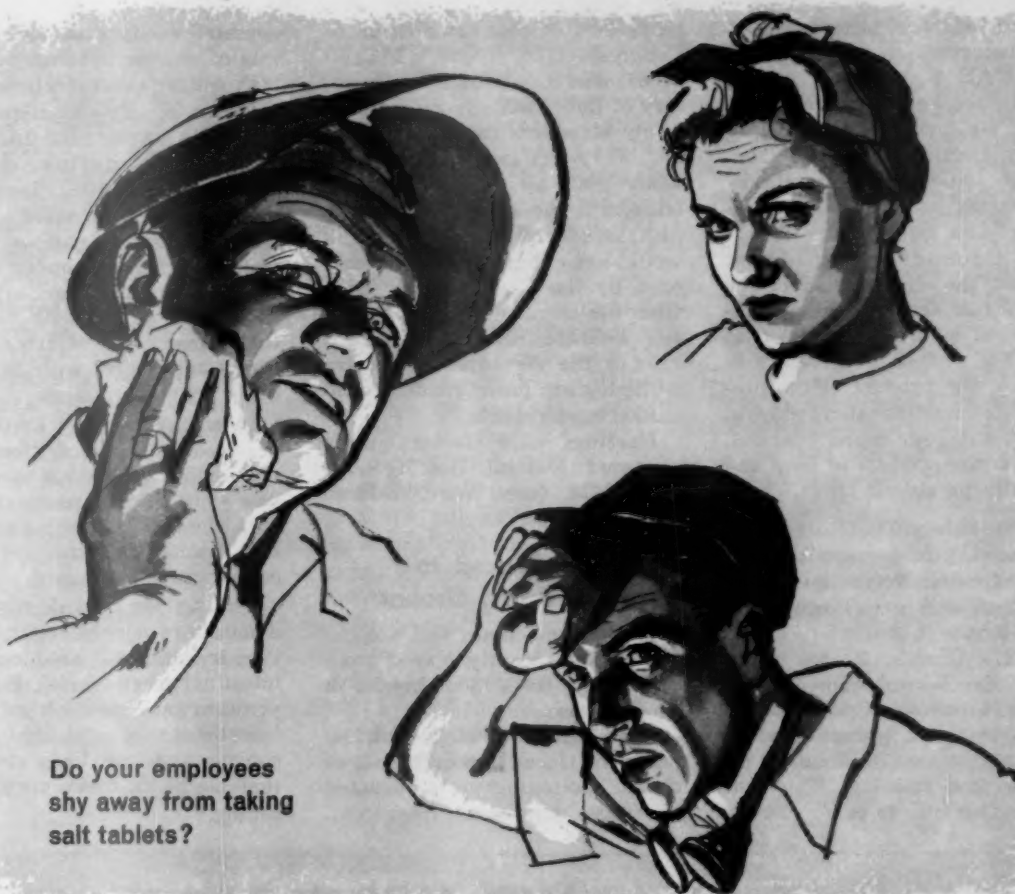
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Do your employees
shy away from taking
salt tablets?

Switch to Morton Yellow Salt Tablets for fast relief without feeling ill!

You and your employees will like Morton Yellow Impregnated Salt Tablets. These are non-sickening salt tablets, made by a special patented process that uniformly coats the individual salt crystals to control the dissolving rate of the tablet. This controlled dissolving rate means that essential body salt lost through perspiration begins to be replaced, immediately but at a gradual, non-nauseating rate.

When there's danger of Heat Fatigue, workers feel better, work better and more safely, when they take Morton Yellow Impregnated Salt Tablets. Remember, they do not cause stomach upset.



Complies with Federal Specifications SS-S 31f for Type 111, Class C Impregnated Salt Tablets. U.S. Patent No. 2,665,236. Patented 1954 (Canada) No. 801,316.

Morton Yellow Impregnated Salt Tablets come in a handy Disposable Dispenser. A plastic dispenser and a golden heavy duty aluminum dispenser also are available, as are plain salt tablets.



Mail coupon today for more information!

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COMPANY**
INDUSTRIAL DIVISION

Dept. NS-458, 120 So. La Salle Street
Chicago 3, Illinois



Circle Item No. 25—Reader Service Card

tion, and height of other types of tall structures.

The CAB issued new regulations tightening control over all types of air operation, by allowing military aircraft to deviate from air traffic rules only for military emergencies and necessities and then only on prior notice.

The Commerce Department said that "the safety record of our airways has shown a sharp improvement over a long period of time," but warned that "safety is, basically, the product of the professionals slugging along day in and day out, year in and year out. Safety is the product of long and especially persistent effort."

Marine Safety. The Coast Guard announced public hearings on proposed extensive changes in its navigation and vessel inspection regulations.

S. 3277 (Smith, N. J.) would amend the Longshoremen's and Harbor Worker's Compensation Act, to provide a system of safety rules, regulations, and safety inspection and training. This Administration bill, to carry out the

President's recommendation to Congress (see "Wire," March 1958), would authorize the Secretary of Labor to issue and enforce safety standards in the longshore and ship-repair industry, and would place an obligation on contractors in those industries to furnish safe employment. The bill would not extend to matters covered by the Coast Guard. Data from the Bureau of Labor Statistics indicates that the accident rate in the stevedoring industry is the highest for any industry included in its reports.

Hearings were started on the proposed Federal Boating Act, H.R. 8474 (see "Wire," March 1958).

Poisoning Traced to Vending Units, Shaker

Vending machines and a cocktail shaker recently played trouble-making roles in outbreaks of copper poisoning.

The California State Health Department traced two outbreaks of copper poisoning to carbonated beverages purchased from coin-

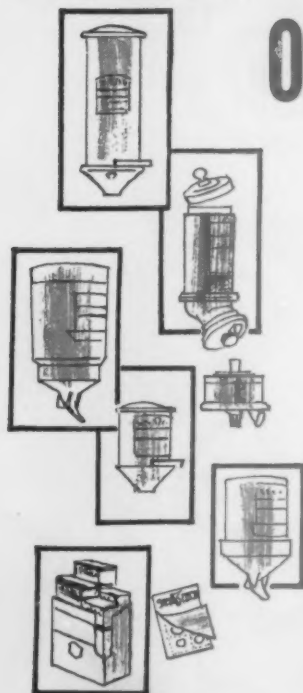
operated vending machines. Analysis of sample beverages showed high copper concentrations.

Water for these machines flows through a copper tube into a non-copper carbonating chamber. Mixed with carbon dioxide, the water makes carbonated water. A valve prevents carbon dioxide from entering the copper tube. If the valve is faulty, carbon dioxide comes in contact with water in the copper line. Carbonic acid forms and reacts with copper to make copper carbonate.

In another report a metal shaker, used to mix and store cocktails, had a lining that apparently was worn thin by repeated cleaning. The copper base reacted with the drink. Cocktails containing copper were consumed.

Eating or drinking toxic amounts of copper results in severe irritation of the stomach and intestinal tract. Onset of nausea, vomiting, and stomach pain a few minutes to several hours after consumption produce symptoms that can be mistaken for food poisoning.

CHOOSE FROM INDUSTRY'S WIDEST SELECTION OF QUALITY SALT PRODUCTS



Choose from metal dispensers carrying a full five year guarantee against mechanical failure . . . clear plastic dispensers with your choice of enteric coated or impregnated tablets at the same price . . . opaque plastic dispensers with dust-proof closures and quick-lock-tops. Select a pack of six tablets individually sealed in plastic and handy as a book of matches . . . 6,000 or 60,000 tablet boxes of loose tablets for refillable dispensers. Name a type of tablet . . . plain salt, enteric coated, impregnated, combination salt and dextrose, enteric coated combination . . . Standard Safety makes them all.

Why hamper your selection? Why force yourself to choose from an incomplete variety of products? Why waste time seeing dozens of salesmen to find out what's being made? Call your StaSafe representative and see at a glance the best that is available.

STANDARD SAFETY EQUIPMENT COMPANY

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LOS ANGELES 46, CALIF.

855 EAST 152nd STREET
CLEVELAND 10, OHIO

Diary

—From page 36

"Here's clear straightaway, where nothin' can happen, and you've got it marked for the same speed you got near the gate with drivers comin' in from three directions. Right here was where I was speedin'—30 I was drivin' on a dry day and in broad daylight. This road oughta be marked 35 anyway, and the gate area oughta be no more than 10."

He showed me some other things—a turn masked by a big plant sign, some bad holes in the pavement, a freight dock with inadequate turning space for the trucks using it.

When the tour was over, and he was driving me back to my office, I asked him about the running of the stop sign. "Okay," he said, "so I goofed. Guy's gonna slip once in a while. It ain't happened since that one time."

I've spent a couple of hours with my assistants since the trucker left. That entrance to the guard room is a hazard—a deadly

one. It will have to be changed. The speed zone problem is more difficult. That area is clear now, but it won't be long. Soon, construction will start on plants in the neighborhood, and 15 miles is all I can see as a reasonable speed limit. But I'll admit that we ought at least to explain to truckers using the road why the limit is on.

The bad paving is no news to me—I've been after the project on that before. I don't know yet whether we can do anything about that turning area—but it is cramped and costs a lot in delays, even if it hasn't yet produced any accidents.

But the one of the trucker's suggestions that really embarrasses me is that we remove that plant sign. He's right—it completely conceals traffic from the east from a driver going north.

What's embarrassing is that it's a sign I urged the plant to install—a large, impressive, dramatic sign urging the employees to work safely.

Larger Fume Collectors For Atomic Age

Developments in welding during the past few years have intensified problems of fume removal. Use of certain types of coated electrodes, welding of stainless steel, bronze, lead, and zinc-coated metals, plus multiple installations, call for high performance standards for fume collectors.

These collectors draw fumes and smoke away at their source through high-velocity exhaust hoods before vapors have a chance to rise and spread through the shop atmosphere.

More recent applications of fume collectors have been in atomic energy operations. Increased demands in this field, as well as in welding, have resulted in the introduction of collectors of greater capacity. A new model with 5-inch hose, recently introduced by Ruemelin Manufacturing Company of Milwaukee, is said to handle 60 per cent more air flow than 4-inch equipment.



Eliminate dangerous hazards of working on slippery tank car tops. Avoid costly, heartbreaking accidents. Protect your employees—make them more efficient.

Custom built vertically adjustable platforms available in a range of prices. Hydraulically or manually operated. Write for pictures, specifications, information.

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American Cyanamid Co.
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Ford Motor Company
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Chrysler Corporation

RAILROAD

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PETROLEUM

Esso Standard Oil Company
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Jones & Laughlin Steel Corp.
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See us in booth No. 132 at the 28th annual New York Safety Convention and Exposition, April 14-15.

YOU CAN'T
BARGAIN
WITH SAFETY

Ski lift operators stress safety when it comes to buying wire rope.
Too many lives are at stake. So they buy . . .

A Safe Lift

Even though you don't operate a ski lift, false economy can be costly in your rope purchases, too. For a rope failure can cause personal injury . . . wreck your equipment . . . throw off your entire work schedule . . . and affect employee morale. Yes, a "bargain" wire rope may save you money, yet cost you your peace of mind. Don't take a chance. Buy a rope that's a quality rope—buy Wickwire Rope.



LOOK FOR THE
YELLOW TRIANGLE

PRODUCT OF WICKWIRE SPENCER STEEL DIVISION
THE COLORADO FUEL AND IRON CORPORATION

3050

THE COLORADO FUEL AND IRON CORPORATION—Denver • Houston • Odessa (Tex.) • Phoenix • Salt Lake City • Tulsa
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New York • Philadelphia

Circle Item No. 28—Reader Service Card

Circle Item No. 29—Reader Service Card →

National Safety News, April, 1958



Pittsburgh Color Dynamics® in new Graflex Plant

World-famous maker of precision cameras uses modern painting system to improve efficiency and safety of workers

Graflex, Inc. of Rochester, New York, has used Pittsburgh COLOR DYNAMICS for many years to improve productive efficiency and safety of its workers. As a result of its highly satisfactory experience, the new building recently completed to house main offices and manufacturing facilities, has been completely painted according to the principles of this modern color system.

● In this new structure, with 225,000 square feet of floor space, this pioneer maker of cameras, now part of the

General Precision Equipment Corporation, continues to produce photographic and electronic equipment of exceptional versatility and reliability for civilian and military use.

● "Our production requires precision and accuracy," comments M. B. Moore, Graflex vice-president and factory manager. "We strive to provide our operators with best possible lighting conditions. Our experience has proved that COLOR DYNAMICS, with its focal and eye-rest colors on walls and ma-

chines, helps them see their work better. Eye strain, nervous tension and physical fatigue are reduced."

● "Safety colors on controls and traffic areas have lessened danger of time-loss accidents. Our workers are proud of their cheerful surroundings. They keep work areas clean and orderly, reducing housekeeping. Long-time experience with COLOR DYNAMICS has shown it to be economical. We enjoy its benefits at no greater cost than conventional maintenance painting."

How You Can Get A COLOR DYNAMICS Plan—FREE!

● Why not try painting the COLOR DYNAMICS way in your plant? Send for fully-illustrated free booklet which explains how you can improve efficiency, morale and safety of your employees with this modern painting system. Better still,

arrange to get a COLOR DYNAMICS plan of your plant without cost or obligation. Call your nearest Pittsburgh Plate Glass Company branch and arrange to have a representative see you. Or mail coupon at right.

PITTSBURGH PAINTS

SYMBOL OF SERVICE FOR SEVENTY-FIVE YEARS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED



Send for a Copy of this FREE Book

Pittsburgh Plate Glass Co., Paint Div.,
Department MEN-48, Pittsburgh 22, Pa.

- ☐ Please send me a FREE copy of your booklet "COLOR DYNAMICS."
- ☐ Please have your representative call for a COLOR DYNAMICS survey without obligation on our part.

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IF you have ever watched your child at play—secure, happy, unafraid—you have seen the strongest argument in the world for investing part of every pay in United States Savings Bonds. For bonds, which can protect her present and insure her future, are savings you cannot lose. They're Government-insured up to any amount. They pay $3\frac{1}{4}\%$ interest when held to maturity. And they make saving for security easier—because you can buy them automatically through the Payroll Savings Plan where you work. Or regularly where you bank. Why not start your bond program today? Make life more secure for someone you love.

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Distinguished Service

—From page 44

born (Mich.) Glass Plant, Norfolk (Va.) Assembly Plant, Rawsonville (Mich.) Plant, Truck Plant, Highland Park, Mich.

General Electric Co. Three awards: Plastics Department, Decatur (Ill.) Plant; Taunton (Mass.) Plant; Distribution Transformer Plant, Hickory, N. C.

A. P. Green Fire Brick Co., Mexico, Mo.

International Minerals and Chemical Corp., Florida Phosphate Minerals Department, Bartow, Fla.

Joy Manufacturing Co., Michigan City Plant, Michigan City, Ind.

Lenkurt Electric Co., San Carlos, Calif.

National Lead Co. of Ohio, Feed Materials Prod. Center, Fernald, Ohio.

New Jersey Zinc Co., Palmerton (Pa.) Plant.

Northern Pacific Railway Co., Livingston Shops, Livingston, Mont.

Owens-Illinois Glass Co., Valdosta (Ga.) Mill Division.

Radio Corp. of America, Radio "Victrola" Division, Cambridge, Ohio, Plant.

A. O. Smith Corp., Electric Motor Div., Tipp City, O.

City Utilities of Springfield, Transportation Dept., Springfield, Mo.

Sutherland Paper Co., Division 11, Kalamazoo, Mich.

Tennessee Valley Authority, Office of Power, Chattanooga, Tenn.

The Texas Co., Refining Department, West Tulsa (Okla.) Works.

Union Carbide Nuclear Co., Two awards: Division of Union Carbide Corp., Mine, Bishop, Calif.; Oak Ridge Gaseous Diffusion Plant, Oak Ridge, Tenn.

Union Oil Co. of Calif., Los Angeles Refinery, Los Angeles.

U. S. Steel Corp., American

—To page 68



**Sure-footed
SAFETY
on the job**

GRO-CORD

SLIP-RESISTANT
PUNCTURE-RESISTANT
SAFETY SHOE SOLES



RESISTS—

OIL — HEAT
ACIDS — CAUSTICS

Each of these three Gro-Cord soles is designed for maximum slip-resistance and has density of soiling material to resist punctures. Each sole has been developed to meet specific working conditions and gives greater safety, greater comfort and longer wear.

The handy Gro-Cord Sole Selector tells instantly which Gro-Cord sole is best for any of 50 basic jobs. Write for it today. It makes it easy to "Sell 'em the shoe with the Sole for the Job."

GRO-CORD RUBBER CO.

LIMA, OHIO

Canadian Plant
GRO-CORD RUBBER CO. of CANADA LTD.
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GC11

Circle Item No. 30—Reader Service Card

Distinguished Service

—From page 67

Bridge Div. Fabrication Plant,
Ambridge, Pa.

Western Electric Co., Newark
Area of Telephone Sales Div.—
Installation, Newark, N. J.

Westinghouse Electric Corp. Two
awards: Industrial Heating Division,
Meadville, Pa.; Standard
Control Division, Beaver, Pa.

CERTIFICATE OF COMMENDATION
American Airlines Inc. Ten
awards: Albany (N. Y.) Station;
Charleston (W. Va.) Station;
Memphis (Tenn.) Station; Monterrey
(Mexico) Station; Oklahoma City
(Okla.) Station; Richmond (Va.)
Station; Rochester (N. Y.) Station;
Syracuse (N. Y.) Station; Toronto
(Ont.) Station; Tulsa (Okla.)
Station.

Ash Grove Lime and Portland
Cement Co., Springfield (Mo.)
Plant.

Falls Can Be Checked, Esso Finds

A three-month drive against injuries from falls has brought impressive results for the 3,000-employee Esso Research and Engineering Company, central scientific organization of Standard Oil Company (New Jersey), at Linden, N. J.

During the last quarter of 1957, the period of the campaign, the company experienced only three injuries resulting from falls—none disabling. This compared with totals for the first nine months of 1957 of 40 fall injuries, eight of them disabling.

The fall-prevention program, publicized in Esso Research's employee newspaper, used a variety of National Safety Council materials. These included two films on fall-prevention shown to various employee groups, posters displayed on company bulletin boards, and footprint cutouts fastened to corridor floors with the slogan, "Falls Hurt, Be Alert."

This successful effort contributed to a disabling-injury-free record that began on Sept. 6, 1957, and was still unbroken on January 20.

Honor Plant for Half-Century Record

In 1904 the Employers' Liability Assurance Corporation wrote the first workmen's compensation policy for the Knowles Loom Reed Works in New Bedford, Mass. And during the past 52 years the plant has not had a disabling injury.

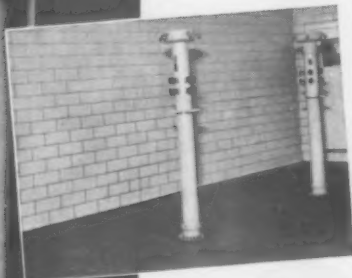
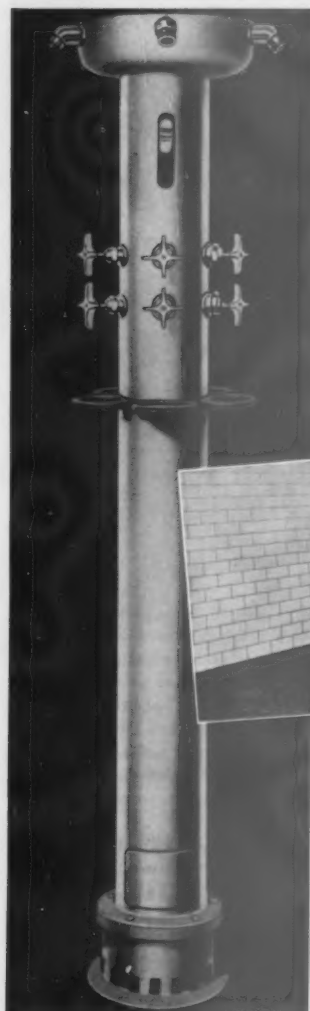
The company was founded 72 years ago and specializes in the manufacture of fine loom reeds. Normally the plant employs about 25 persons, although during the war it rose to 100. The insurance carrier estimates that during the 52 safe years the plant worked more than 3 million man-hours.

Labor and management working together to maintain safe-as-possible working conditions are credited for the record. In recognition of the accomplishment the plant was presented with a plaque by the insurance company.

You can see the world in an automobile—the way you drive decides which world.

EASILY INSTALLED SHOWER FACILITIES

*Just One Shower Column
Provides Five Showers
With or Without
Separating Partitions*



Bradley Columns placed in a partly walled-in room. Each 5-shower unit requires only one hot, one cold water and drain connection.

Bradley multi-person Shower Units are economical—each column provides for 5 showers or for 3 if placed against wall. They can be open or with partitions and curtains.

Yet each Column requires only three piping connections as compared to 15 needed for 5 conventional shower stalls. And each person has control of water temperature and volume.

Bradleys are the answer to shower problems. Easily installed in new or existing buildings. Get complete details, pages 22 to 26, Catalog 5601. **BRADLEY WASHFOUNTAIN CO.**, 2237 W. Michigan S., Milwaukee 1, Wis.



Write for
Catalog 5601



Bradley 5 Stall Shower with partitions and curtains

BRADLEY
multi-stall showers

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You get so much **MORE** out of B&L
PROTECTION-PLUS Safety Glasses!



ACETATE Y-60



COMBINATION Y-90



METAL M-40

+ **PROTECTION** • Frames unsurpassed in strength and durability. Bal-SAFE lenses . . . plano or prescription . . . give *maximum impact resistance*.

+ **ECONOMY** • Exclusive "integrated" design of line (interchangeable parts and accessories) means smaller inventory. Frame life expectancy is demonstrably greater.

+ **WORKER ACCEPTANCE** • Products of nation's top ophthalmic specialists . . . expert in modern eyewear development . . . styling and comfort.

When you standardize throughout your plants on Bausch & Lomb Safety Eyewear, you're in the best possible position to demonstrate . . . to workers AND management . . . the wisdom of your choice.

You get maximum protection *plus* economy *plus* your workers' hearty OK. Want to be "filled in" on the latest in this line? Call the Bausch & Lomb supplier in your area, or write: Bausch & Lomb Optical Co., 90328 Smith Street, Rochester 2, New York.

BAUSCH & LOMB



On man and woman at top, T-60 Two-Tone Frames.

Circle Item No. 32—Reader Service Card

Ear Protection

—From page 31

muff-type protectors for years lay in the difficulty of designing a device which could be sealed tightly over the irregularities surrounding the ear (including the bows of eyeglasses) without the necessity for applying unbearable pressure. Current standard Air Force muff protectors (Figure 2) have overcome this obstacle to a high degree but are still more bulky

and exert more pressure than is desirable. One size fits almost all heads, and the device does the job. This same muff protector, fitted with earphones and a microphone mounted in a noise shield, (Figure 3) allows speech communication in noise levels up to 140 decibels.

The combination of insert ear plugs and the Air Force muff protectors provides protection approaching limits imposed by the threshold for conduction of

sound through bone and tissue. The principal effort now is to improve wearability (especially for comfort and bulk) while maintaining really good attenuation. Several liquid-filled seal muffs, such as those developed by the Canadians, offer good promise when problems of stiffness in cold weather and fragileness of the seals are overcome.

Attenuation provided by the Air Force standard devices is shown in Figure 4 data. These are for good fits. When the fit is not as good, protection (especially against the lower frequency range) is correspondingly less. For the practical situation, Figures 5 and 6 show how representative noise fields would be modified for men wearing the plugs, the muffs, or both. It is apparent that either device alone provides sufficient protection against the noise field of a typical jet aircraft at idle. For the high power condition, either device provides adequate protection for relatively short exposures.

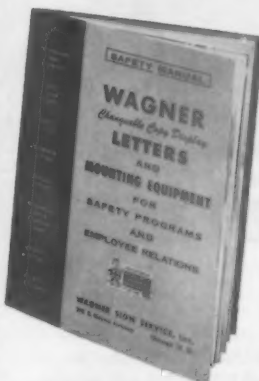
Why is it that so many workers in noise do not yet use these protectors? In many cases the fault lies with a management which has not admitted the problem and provided devices. Among workers in such organizations it is significant that many have procured protectors for themselves. Pencil erasers, cotton, and various types of ear plugs bought from drug or sporting goods stores or issued by previous employers are used by these men.

For the situation where management has tried to provide noise protection and failed, it is best to ask the workers why they do not use the devices. There are at least five common reasons given:

1. They are afraid of missing speech or warning signals. They should be assured that such signals will be heard as well or better, just as visual perception in intense light is improved by sunglasses. However, each man must raise his voice over what seems proper loudness when wearing plugs. With muffs, he will automatically speak loud enough.

2. They cannot get the plugs to feel comfortable or exclude noise well, although the devices did a

"If I were a Safety Engineer
I'd consider this brochure priceless"



"It suggests the most effective means of promoting safety programs . . . and at a cost that every company can easily afford. That's probably the reason so many are installing changeable copy boards. Permanent signs can't approach them."

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Circle Item No. 33—Reader Service Card

Real Hydraulic Fluid Fires!

STEEL PLANT RAZED IN MILLION-DOLLAR BLAZE Flammable Hydraulic Fluid Ignited

In a million-dollar holocaust last night, the main section of the

Fire broke out in the tinning area and spread quickly to other areas nearby. Because of the

firemen were helpless to halt the blaze. An automatic sprinkling system was also

made hydraulic fluid

\$340,000 DIE-CASTING PLANT DESTROYED FIRE CAUSED BY HYDRAULIC FLUID LEAK

t of control
bine manu-
quarters
use of the
attributed
leaking
he tin-

A raging fire burst out of control today in the local plant of

was estimated at \$340,000. It was only partially covered by insurance. Co. officials

declined to comment as to the cause of the blaze, but reliable sources hinted that a high-pres-

oil over a hot die-casting machine and the gas-fired

the scene fifteen
was sounded
stem the bl-
building escape
to a faulty h-
ruptured, a
petroleum fi-
stock and
electrical
pot at

the scene fifteen minutes after an alarm was sounded but could do little to stem the blaze. Employees in building were

\$450,000 ALUMINUM PLANT IN FLAMES OIL LINE RUPTURES NEAR CENTER OF PLANT

the jet
plant
raile
joint
ced

A \$450,000 section of the foundry was in flames at 2:00 p.m. after flammable

electrically heated aluminum holding pot and ignited. Fire spread immediately from the center of the plant to

the scene fifteen minutes after an alarm was sounded but could do little to stem the blaze. Employees in building were

Fire broke
area and
areas n-
swift-
In a
even

Don't let this happen to you!

NOW YOU CAN END THE HAZARD OF FLAMMABLE HYDRAULIC FLUIDS IN DANGEROUS APPLICATIONS, EASILY

● MONSANTO HELPS YOU PINPOINT DANGER ZONES ● PYDRAUL F-9 STOPS HYDRAULIC FIRES BEFORE THEY START

Hydraulic leaks occur every day. And one small leak can turn into a blazing monster—pressure in the lines can spray out a flammable mist of oil to an ignition source over 40 FEET AWAY!

Monsanto's Hydraulic Fluid Safety Service helps you expose hidden fire hazards... alerts you to unsuspected and overlooked ways flammable fluids have started disastrous fires. Wherever flammable fluid is a threat, you can safeguard plant and people with fire-resistant Pydraul F-9—the only hydraulic fluid listed by Underwriters' Laboratories.

Yours without obligation, Monsanto's Hydraulic Fluid Safety Service:

- an informative 12-minute movie, "Before Hydraulic Fluid Fires Start," to show you where and how many hydraulic fluid fires begin
- plant-proved Hydraulic Fluid Survey Sheets, so you can analyze your own fire hazards easily and efficiently
- a 19-page technical booklet which gives you detailed facts about Pydraul

properties, costs, advantages and ease of change-over from flammable fluids

- a call from a Monsanto hydraulic fluid expert to demonstrate the firesafety of Pydraul versus your present fluid, and to answer questions from you and your plant superintendent, chief engineer or anyone else concerned with hydraulic equipment and safety

Pydraul—T. M. Monsanto Chemical Company

WHERE CREATIVE CHEMISTRY WORKS WONDERS FOR YOU



JUST MAIL THIS COUPON, TODAY

Monsanto Chemical Company
Organic Chemicals Division
Dept. SN, St. Louis 24, Missouri

I want Monsanto's Hydraulic Fluid Safety Service:

- ☐ Free showing of 16-mm film, "Before Hydraulic Fluid Fires Start"
- ☐ Free copies of the Hydraulic Fluid Survey Sheet
- ☐ 19-page technical booklet, "Pydraul F-9"
- ☐ Have a representative call to discuss my hydraulic fluid problems

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Company.....
Address.....
City..... Zone..... State.....
Position.....

Circle Item No. 34—Reader Service Card

fine job on both scores when the nurse fitted them. A loose plug not only is uncomfortable and inefficient, but may actually vibrate in the ear canal and add to the noise level reaching the inner ear. Each man must be shown the best method for him to use in inserting the plugs. If he cannot learn to use one type, others should be tried until a satisfactory one is found. It cannot be emphasized too much that *no one type of insert ear plug fits everyone.*

3. Again in the case of insert plugs, it may turn out that the plugs originally issued no longer fit. There are two good reasons for the changes: First, ear canals frequently are somewhat stretched by regular use of plugs. Second, ear secretions of some individuals tend to react with certain plastic materials and shrink them. Conversely, some plugs are found to swell after long contact with ear wax.

4. Noise "doesn't bother" many persons. There are still many who claim this, but their numbers are fewer as the noise levels go up. These people test the ingenuity of all charged with providing protection. They must be fitted so well and so comfortably that they cannot help being convinced of the value of noise reduction for lessening temporary hearing loss and ear ringing and for improving overall pleasantness of the work situation.

5. Perhaps the most common and most important reason for the widespread non-use of ear protectors stems from the many interpretations of the word *available*. To the average man working in noise, the devices pictured in Figures 1, 2, and 3 are not available.

It is good to fit people initially in the doctor's office or dispensary, so that checks for ear infections, wax, etc., can be made. This is not enough. All the devices can be lost, broken, left at home, or stolen, and frequently are. The man really bothered by noise will eventually make the effort to find replacements. The remaining workers will think of doing so during severe noise exposures and will promptly forget as the noise ceases. *Available*, in this instance, means *at or near* the location where the noise exposure takes place.

A liberal application of the personal touch is required to overcome all five reasons for non-use of ear protectors. Frequent and regular follow-up of ear protector indoctrination is mandatory.

The person responsible must be sincerely interested in the men and their work. He must spend enough time observing various activities to know to what level and what type of noise each group of workers is exposed during the duty tour. He must wear various types of ear protectors in each situation to convince himself and the workers that they provide adequate protection. This step is particularly important when new and high level noise sources are introduced, such as when a shift is made from one type of jet engine to engines of higher thrust. He must make an extra effort

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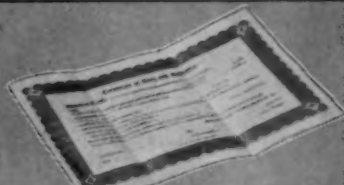
Accoloy X-weld 125 Chain
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New Shaped Master Link



ACCO Registration Ring



Registration Certificate

Big, costly loads are safe with **Acco Registered®** Sling Chains

• Pictured above is a huge, 35,000-pound casting being lifted *easily and safely* by a 4-leg **Acco Registered** Sling Chain. Directly beneath the load is a highly polished and machined crank shaft worth many thousands of dollars.

Imagine the cost in lost labor and materials, should the sling chain fail! But it won't fail—for this **Acco Registered** Sling Chain and all its components have the inbuilt strength needed to handle the job with complete safety!

When you buy an **Acco Registered** Sling Chain, you get these four exclusive "plus values" which *add materially to the worth, but not to the cost, of the sling*:

1 • **Accoloy X-weld 125 Chain**, for extra strength. This chain hangs straight . . . does not kink . . . has extra resistance to bending.

2 • **New Shaped Master Link**, uniquely shaped to withstand deformation under loads up to 18% greater than a round-section link can do.

3 • **ACCO Registration Ring**, serially numbered as evidence that the assembled sling has been factory proof-tested to twice its working load limit.

4 • **Registration Certificate**, signed by us, attesting to the field-tested design and proof-testing of the complete sling.

Remember, the best sling is one of your most economical material-handling tools. You'll find it good business to consult your **Acco Registered** Sling Chain Distributor on all your sling needs; his counsel is available without obligation. If you don't know his name, write us at York, Pa.

WHAT "ACCO REGISTERED" MEANS

- 1 The best material
- 2 Unit safety factor (on bodies, rings, links, hooks)
- 3 Proof test of complete sling to twice the working load limit
- 4 Actual field service test of each design
- 5 Metal identification ring on each sling
- 6 Signed Registry Certificate with each sling

American Chain Division **AMERICAN CHAIN & CABLE**

Bridgeport, Conn. • Factories: *York and *Braddock, Pa.

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*Houston, *Los Angeles, New York, Philadelphia, Pittsburgh,
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Circle Item No. 34—Reader Service Card



to include the night shift and the "graveyard" shift in his periodic visits. He must be prepared to answer questions on noise and its effects accurately and in simple, clear, undramatic terms. It is important that he indicate in what respects the men should be concerned and equally important that he squelch exaggerated or false rumors as soon as possible.

Finally, he must be expert in the fitting of ear protectors. Throughout his tours, he must constantly observe the manner of

use and effectiveness of devices and be prepared (by carrying a supply at all times) to try different items on those who obviously require them.

Each man has a right to experience for himself the advantages of good ear protection. It is up to management to see that he has that opportunity. Management will be repaid many times over in terms of improved work output, of fewer compensation claims, and of a better satisfied work force.

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in
TUBES..



Skin-
Cote
No. 1 & 3

Comes in
JARS . . .

Provides an invisible film barrier or coating over the skin to protect from irritation with solvents, such as hydrocarbons, carbon tetrachloride, kerosene and degreasing agents. It also supplies an effective barrier protection for the skin against dust-borne irritants, grime and grease . . . send for complete information concerning SKIN-COTE #1 & 3 and other related products that solve the problem of Industrial Dermatitis—

if you have a Skin Problem, consult us.

THE BOYER-CAMPBELL COMPANY

6548 St. Antoine

Safety Division

DETROIT 2, MICH.

Circle Item No. 37—Reader Service Card

Mando

—From page 42

Mutuals of Wausau," says W. H. Schlafge, general manager of the International Falls Mills.

"To paraphrase a well-known quotation, 'a safety program is just as strong as the most careless employee,'" he said.

How do you evaluate the success of accident prevention efforts? First, of course, by the number of lives saved, injuries prevented and heartbreak avoided.

Second, there is the dollar and cents answer. On the current policy year, the company is operating on a 34 per cent experience rating credit on its workmen's compensation insurance. Simplified, this means that Mando, thru its good safety record over the past three years, is enjoying a much lower insurance cost per \$100 of payroll than is a company with an "average" accident experience.

There are other yardsticks, including company morale—both management and employee—uninterrupted production, meaning a more profitable operation; and illness records, because usually where the accident rate is low, the illness rate is correspondingly low.

Here's the way the management feels about the "why" of winning national safety awards: The entire company—officials and workers alike—must be convinced of the personal necessity for active, carefully-planned accident prevention. The next step is to provide trained personnel to evaluate the safety problems and to recommend steps necessary to their solution.

Mando's safety program was able to convince plant employees that safety measures are mutually beneficial—and that most of the benefits accrue to them.

D. L. (Don) Eisenach, safety director, says the safety committee's activities in the company's three mills have just about everything to do with the company's over-all safety record.

"Our safety committees are good," he says, "and they know what they're doing. They aren't paving any road with good intentions. These safety committee members operate under the theory



New solvent cleans fast, with greater safety

*Chlorothene makes machine cleaning easy,
reduces fire hazard and can be used safely*

Consider Chlorothene® (Dow 1,1,1-Trichloroethane, Inhibited) for your cold-cleaning jobs—spray, dip, bucket or wipe. This remarkable new solvent does the job fast, and it may be the answer to your safety problems.

Compare the safety features of Chlorothene with the cold-cleaning solvent you are using now. Chlorothene has no flash or fire point by standard testing methods. Toxicity-wise, it has a maximum allowable concentration of 500 ppm.

You'll find plenty of uses for Chlorothene in and around the plant. It readily removes greases, oils, tars, waxes and lubricating compounds. It's an excellent solvent for cleaning electrical equipment, machines, and other metallic and nonmetallic surfaces.

Ask your Dow solvents distributor for Chlorothene. He's the same man who supplies Dow Methylene Chloride, Dow Perchloroethylene, and Dow Trichloroethylene.



Write today for
the Chlorothene book.
THE DOW CHEMICAL COMPANY,
Midland, Michigan,
Dept. SO 1152B.

YOU CAN DEPEND ON

DOW

Circle Item No. 38—Reader Service Card

that the life you save may be your friend's.

"Of course, we supply the various committees with literature, bulletin board notices, mechanical aids, and all the rest, but you can't prevent an accident by reading a slogan. You've got to take action. Our committees—and the rest of our people—have done just that," he said.

"I hope Employers Mutuals has

to pay for a lot more of these banquets." Eisenach says, "We all realize that the opportunity for a free meal isn't the deciding factor in accident control, but all of us like to be rewarded for a job well done. I give special praise to the people who serve on these safety committees. The banquet itself is merely a goal at the end of the road—the time and place where efforts are recognized."

Industrial Health

—From page 14

tient. Cure or relief, he said, is attained by eliminating contact with the irritating or sensitizing substance or by treatment of the area, protective clothing, job-changing, or discontinuance of work.

Dr. Harry R. Foerster, Clinical Professor of Dermatology, Marquette University, Milwaukee, Wis., noted that occupational skin diseases form 30 to 40 per cent of all occupational diseases and about two-thirds of diseases for which workmen's compensation is paid.

A conservative estimate of cost of these diseases in the U.S. is more than \$100 million yearly, Dr. Foerster said. He estimated that 90 per cent of all occupational skin diseases are of a chemical nature, resulting from chemicals used in actual industrial processes or from cleansing agents used by workers.

X-ray examination of the lower-back of adolescent boys can be helpful, while not the sole basis for employment, in proper placement of applicants for work, according to Dr. Rex L. Diveley, orthopedic surgeon. If x-rays show a serious spinal defect dating from birth, each boy then could study a trade or profession more suited to his physical condition.

Dr. Diveley has given pre-placement examinations to 8,488 persons in a seven-year period for two firms. These companies have many jobs considered potentially hazardous to the lower-back. X-ray studies of the first 6,523 persons showed 39.9 per cent had normal spines, while 41.1 per cent had abnormalities from birth. The rest had various other spinal defects. On the basis of these examinations employment was refused to 3.8 per cent of all applicants, and 12.7 per cent received assignments to limited or specific duty which the examiner felt to be without hazard to the back.

In this study the number of persons rejected for employment has risen slightly since the examinations started. The number

Accidents cost more than

**ALCOA
ABRASIVE
TREAD
PLATE**



An employee slips on a greasy floor and twists his knee. A severe, chronic inflammatory condition results. Medical costs and Workmen's Compensation total \$10,553.77. The employer's accident rate is up. Production time is lost while a new man is trained.

This is just one of 20,000 avoidable slipping accidents in industry every year. Alcoa® Aluminum Abrasive Tread Plate with lasting slip-proof qualities prevents such accidents. Tough particles of fused aluminum oxide in its abrasive surface stay slip-proof even when wet, oily or greasy. It is the only nonskid floor surface that gives you the advantages of corrosion resistance and light weight.

Learn how you can eliminate hazardous conditions on floors, stairs, ramps and other areas. Check the coupon below; write Aluminum Company of America, or call your nearest Alcoa distributor.

Make Your Own 30-Second Safety Test . . . Check the Coupon for FREE Sample of Alcoa Aluminum Abrasive Tread Plate.



Your Guide to the Best in Aluminum Value



Alcoa Abrasive Tread Plate gives a safe, sure grip—even when wet, oily or greasy.



"ALCOA THEATRE"
Exciting Adventure
Alternate Monday Evenings

Aluminum Company of America
1671-D Alcoa Building
Pittsburgh 19, Pennsylvania

I'd like to see how Alcoa Abrasive Tread Plate prevents slipping. Please send me FREE sample—also application, design and fabricating data.

Name and Title _____

Company _____

Address _____

City and State _____

Circle Item No. 85—Reader Service Card



Bell Telephone Laboratories, Murray Hill, N. J.

DREAMS WITH A PURPOSE

"Leave the beaten track occasionally and dive into the woods. You will be certain to find something you have never seen before."

ALEXANDER GRAHAM BELL

THERE have always been dreams and high hopes in the communications business. And always, for something over eighty years, there has been continuous and determined research to help make those dreams come true.

For before there was a telephone there was a telephone laboratory.

First it was just two men, Bell and Watson, in an attic workshop. Then the idea grew, as the need grew, and the practical values of research became more and more apparent.

The activities of the Bell Telephone Laboratories now cover many fields and

go exploring and developing in many directions. But the main purpose is directed to one goal. It is the betterment of communications service and the finding of ways to provide this better service at the lowest cost to the customer.

The great assets of the Bell Laboratories are the judgment and knowledge that have been gained from years of experience, combined with the enthusiasm of minds versed in the newest scientific knowledge.

There is also the encouragement of initiative through a careful balance of pure research and developmental work. The scientist is given a freedom that is rare in industrial work.

Some of the great achievements of the Bell Telephone Laboratories have come in recent years.

The Transistor is a Bell Telephone Laboratories invention. So is the Bell

Solar Battery. So, too, are the switching machines that have brought about Direct Distance Dialing. And, again, there was the development of those wonderful amplifiers for the underseas telephone cables across the Atlantic and under the Pacific to Hawaii.

It all adds up to a great deal of progress. But there is much more to come. All that has been done is but the beginning.

Never have there been so many opportunities for wholly new developments in communications service and so much well-rounded research behind them.

Each day there are excursions off the beaten path, revealing something that has never been seen before.

BELL TELEPHONE SYSTEM



BELL SOLAR BATTERY

Converts sun's rays into usable amounts of electricity by means of specially treated discs of silicon. Has been used experimentally to power rural telephone lines.



THE TRANSISTOR

One of the break-throughs in science that come only at rare intervals. This mighty mite can do many of the things that an electronic tube can do and more besides!



DIRECT DISTANCE DIALING

There are now more than 5,000,000 telephone customers in 450 localities who can dial directly to as many as 30,000,000 telephones all around the country.



Royal McBee Corporation
Hartford, Connecticut



Here's the **ROYAL** way to help build a successful personal hygiene program!

Management at the Hartford, Conn. plant of Royal McBee have been singularly successful in formulating a personal hygiene program that is paying off in better health, employee appreciation and numerous savings.

After extensive research into the problem, Royal management selected SBS-60 Cream Deodorant Soap and Dispensers to spearhead their program because of its multiple advantages: (a) effective cleansing action that combines exceptional detergency with unusual mildness. (b) a cream consistency that makes it almost impossible to waste in either washrooms or showers. (c) provides a drastic reduction in housekeeping and maintenance work. (d) affords a lanolized, antiseptic cream-type soap whose deodorant action is appreciated by both men and women.

If your responsibility is to save money and increase the efficiency of personal hygiene in your plant, we offer the practical help of our service department. Without obligation, these experienced technicians can make a simple soap recommendation or develop a complete personal hygiene program for you.

FREE: Complete descriptive information on SBS-60 Cream Deodorant Soap; SBS-30 Waterless Cleanser; and the complete SBS line of industrial hygiene products. Simply write us today.

Write Dept. 58-D12

SBS
sugar beet products



SBS WATERLESS WASHSTATION*
"Brings the Washroom to the Worker"

MAIN PLANT: 302 Waller St., Saginaw, Michigan
Los Angeles, California • Newark, New Jersey
CANADIAN SUBSIDIARY: Chemical By-Products,
Ltd., 23 Racine Road, Rexdale, Ontario, Canada

*Trademark

Circle Item No. 39—Reader Service Card

of workers reporting to sick call with low-back pain has decreased, Dr. Diveley said.

These examinations have benefited potential employees by enabling them to be placed in jobs they can fill without undue danger. The workers also now are conscious of defects which should be protected.

"Conservative" treatments for relief of low-back difficulties should be given a trial before surgery is considered, Dr. Ralph K. Gormley of the Mayo Clinic, Section of Orthopedic Surgery, Rochester, Minn., said. Many difficult operations have been recommended for low-back disorders, with some success but with many failures, he indicated. Except when progressive paralysis or compression of nerve roots is present, operations should not be scheduled immediately, Dr. Gormley said.

Monoxide Hazard in Propane-Fueled Trucks

"Evaluation of the Carbon Monoxide Hazard From Indoor Use of Propane-Fueled Forklift Trucks" by D. A. Hall; F. A. Miller; C. Riley, M.D.; and R. F. Scherberger, all of Eastman Kodak Company. *AIHA Quarterly*, Dec. 1958.

INDUSTRIAL USE of forklift trucks has greatly increased in recent years. When operated in confined areas, where ventilation is poor or non-existent, a potential carbon monoxide hazard results from these vehicles.

Carbon monoxide concentrations in industrial buildings can be reduced by using electric forklift trucks, general ventilation, local exhaust, catalytic units, or by substituting propane for gasoline.

Electric trucks eliminate the carbon monoxide problem but have higher initial cost and decreased power at low speeds. General ventilation often is impractical, such as in cold-storage warehouses where it would cost money to cool the fresh air to warehouse temperature.

Local exhaust frequently is used in garages or maintenance shops but would be difficult to apply to a moving vehicle. In a catalytic exhaust unit the carbon monoxide-laden exhaust stream is mixed with fresh air and passed over a

heated catalyst, where the gas is burned to carbon dioxide.

Use of liquefied petroleum gas as a fuel for engines does not eliminate the monoxide hazard but has certain advantages over gasoline. Because it is a gas at ordinary temperatures and pressures, propane can mix completely and uniformly with air in the carburetor and can burn almost entirely to carbon dioxide and water in the engine. Propane, with an octane rating of 125, needs no tetraethyl lead and thus does not expel lead compounds in exhaust gases.

A well-tuned, propane-burning engine should discharge less than 0.1 per cent of carbon monoxide at the exhaust outlet compared with 1.5 per cent in exhaust gases from a well-tuned, gasoline-fueled engine and—more commonly—6 to 7 per cent from a gasoline-fueled engine not properly tuned.

In a field test conducted with two forklift trucks, each was in good working order and alike in every respect except the fuel system. These forklifts operated in two identically similar trailers (about 1,800 cu. ft. capacity each).

During use of the propane-fueled vehicle, carbon monoxide concentrations never exceeded 16 ppm., with an average of 6. Carbon monoxide concentrations caused by the gasoline-powered engine almost immediately reached 50 ppm. and remained over a prolonged time at 300 ppm. Average level was 162 ppm.

Under some circumstances, high carbon monoxide levels can develop even when propane-burning equipment is used. Because exhaust gases from propane-fueled engines are not entirely free of carbon monoxide, trucks burning propane cannot be used safely for extended periods in confined, un-ventilated areas.

Also, slow leaks eventually can cause dangerous amounts of an explosive gas to accumulate in low spots. Only a spark is needed to ignite this gas.

REFERENCES: Standards Bulletin No. 58 of the National Board of Fire Underwriters and *Factory Mutual Bulletin No. 7-46*. These publications list precautions to be observed.

RIGGS Nuclear/Industrial Area-Monitoring Instruments

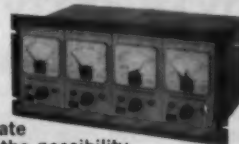


RIGGS
Remote Area Gamma
Monitor (GA-3 Series)

A completely self-contained, independent system with pressurized logarithmic response ionization chamber. Model GA-3B has Mercury battery supply for 4 months continuous operation. Model GA-3BA same as GA-3B but with AC power supply failsafe to DC. Model GA-3A available in AC power supply only.

RELAY RACK MOUNTING (WE)

The RIGGS four-gang rack unit may be any combination of the above GA-3 series remote area monitoring instruments. A separate power supply is not required. This eliminates the possibility of complete shutdown in event of power supply failure or during maintenance to the monitoring instruments. The RIGGS system permits service to each individual unit, when necessary, without affecting continuous monitoring by the others.



General Features and Specifications

Any continuous combination 3-decade logarithmic ranges from .01 mr/hr to 100,000 R/hr.

Energy Dependence
Flat to within $\pm 10\%$ from 80 KV to 1.2 Mev.

Alarm Control System
Meter relays DC manual (optional).
Alarm relay rated 115V AC 2 amps.

Recorder Output
10 mv operated directly from output of unit.

Electronic Calibration
Complete circuit check of all ranges both ends of scale.

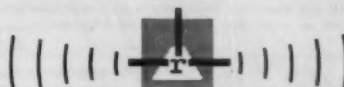


**RIGGS Log-Linear Gamma-Beta
Portable Survey Meter (Model GB-1)**

Log-linear pressurized ionization chamber portable survey meter. Fast response time 0 to 1 mr/hr linear and 2 to 3 decade ranges from 1 to 1,000 mr/hr, .1 to 100 R/hr. Mercury battery powered—300 hr. continuous operation, one year intermittent. Allows fast lab monitoring of low level Gamma-Beta radiation with the linear range and incorporates two higher log ranges for general survey work. Energy dependence—flat to within $\pm 10\%$ from 80 KV to 1.2 Mev.

Pat. Pending

Write for free illustrated technical literature and price lists.



RIGGS NUCLEONICS CORP.
717 North Victory Boulevard, Burbank, California

Circle Item No. 40—Reader Service Card



24-HOUR-A-DAY AUTOMATIC FIRE PROTECTION!

Install a built-in Kidde Fully-Automatic Carbon Dioxide Fire Extinguishing System, and you install the finest, most dependable round-the-clock fire protection on the market today. Individually designed to fully guard even the most dangerous hazards, Kidde systems offer tailor-made fire protection for dip tanks, spray booths, oil bath air filters, record vaults, generator rooms . . . any hazard in which fire can develop and spread!

Because they use dry, clean non-damaging carbon dioxide as an extinguishing agent, Kidde systems can be installed to protect intricate machinery or delicate electrical equipment. Carbon dioxide smothers fire the instant it starts, then vanishes quickly into thin air. It leaves no mess, no clean-up job afterwards!

Kidde systems are pressurized — there are no falling weights, no clumsy mechanical triggering methods. Special rate-of-temperature-rise detectors trigger the system at the first flash of fire, Pneumatic control heads insure instantaneous and complete system discharge. All operating parts are self-enclosed for safety. Visual indicators show at a glance whether system is "set" or "released." Directional valves allow protection of more than one hazard from the same bank of cylinders. There are no parts to replace after a fire.

For more information on Kidde systems, and how they can protect your plant from fire, send the coupon or write today for Kidde's Engineered Fire Equipment Booklet.

WALTER KIDDE & COMPANY, INC.
445 MAIN STREET, BELLEVILLE 9, N. J.

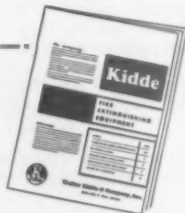
Please send me your Engineered Fire Equipment Booklet, I-19 and complete information on Kidde systems. I am interested in protecting the following hazards:

NAME _____

ADDRESS _____

CITY _____

STATE _____



Circle Item No. 41—Reader Service Card

The President's Medal

Awards made by the National
Safety Council for successful ap-
plication of artificial respiration

LOWELL BLANEY, meter reader, Bell Telephone Company of Canada, Cornwall, Ont.—drowning. Certificate of Assistance to Darwin McCauley.

D. W. MONTGOMERY, foreman, La Plata Electric Association, Inc., Durango, Colo.—electric shock.

MICHAEL J. FEEN, JR., lineman first class, Worcester County Electric Co., Milford, Mass.—drowning.

CYRIL RICHARDS, electrification advisor, Morgan County Rural Electric Cooperative, Inc., Martinsville, Ind.—drowning. Certificate of Assistance to Dean Gentry.

THOMAS A. YATES, Kennecott Copper Corp., Salt Lake City, Utah—drowning.

WILLIAM N. HANCOCK, helper-operation, Kennecott Copper Corp., Salt Lake City, Utah—drowning.

ROGER H. HARMON, helper, The Texas Co., Houston, Texas—gas asphyxiation. Certificate of Assistance to Carl Becken.

B. R. GALLAGHER, guard, Reynolds Metals Co., Corpus Christi, Texas—electric shock.

GEORGE S. BOWLING, installer-repairman, Cincinnati and Suburban Bell Telephone Co., Cincinnati, Ohio—accidental hanging.

Spring Again

—From page 23

Industries, like householders, often are judged by the way they keep up their premises. This attention to architecture and landscaping, plus providing ample parking space, has overcome much opposition of suburban communities to taxing industries.

Important Items

Not all measures for better housekeeping require heavy expenditures or drastic changes in operating practices. Here are some

things that promote better housekeeping:

1. Supply enough well-constructed trash containers.
2. Set up a schedule for keeping containers emptied.
3. Mark aisle lines and keep them maintained.
4. Provide plenty of cleanup equipment.
5. Increase the janitor force if necessary.
6. Draw up a list of reasonable housekeeping rules. Have it printed and circulated.
7. Convince supervisors of the importance of these rules, and follow through.
8. Provide adequate storage facilities for inactive stock and material in process.
9. Get rid of obsolete stock, parts, and waste.
10. Keep floors, stairs, and ramps in good repair.
11. Provide adequate lighting—general and supplementary.
12. Clean windows, skylights, and lighting fixtures regularly.
13. Set up a system and facilities for distribution and maintenance of hand tools.
14. Provide splash guards and drip pans where needed. Use oil absorbents in case of spillage.
15. Insist on employees keeping their work-places in order and allow them enough time to do it.

Use some "before and after" photos of conditions in the plant.

Feature accidents caused by poor housekeeping.

Watch newspapers for stories of fires. If poor housekeeping and spontaneous ignition are suspected, stress that point. Defective electric wiring also might be classed as bad housekeeping.

Periodic comments on progress toward a cleaner plant should be posted.

Employee publications are valuable allies. Some material suggested for bulletin board display may be used more effectively in these publications. A camera will provide much material—some of it will have to be posed, but unplanned horrible examples often will be found waiting for the photographer.

Standings in contests should be published, but not in too great detail.

Contests are among the most

Pulls "teeth" in 1800° F Carbon Furnace



Aluminized [Heat Barrier] Garments cut furnace downtime at Pittsburgh Coke and Chemical Company Plant!

Replacing agitator teeth in a carbon furnace means working next to 1800°F temperatures. At Pittsburgh Coke and Chemical Company's carbon plant, Superintendent J. W. Brady, reports lightweight 3M Aluminized Fabric safety clothing gives his men better protection and greater comfort.

Why? Lightweight, flexible garments made of 3M Aluminized Fabric reflect up to 90% of radiant heat—permit work against temperatures of 1800°F without time loss for cooling down. 3M Aluminized Fabric garments last 30 to 50% longer—have higher resistance to molten splatter damage.

Leading safety clothing manufacturers can supply a complete line of garments made of 3M Aluminized Fabric. For facts—free sample send coupon.

Free Swatches



ALUMINIZED FABRIC

Minnesota Mining and Manufacturing Co., Dept. NW-48, St. Paul 6, Minnesota
Please send me 3M Aluminized Fabric swatches and information.

Name _____ Title _____

Firm _____

Address _____

City _____ Zone _____ State _____

MINNESOTA MINING AND MANUFACTURING COMPANY

... WHERE RESEARCH IS THE KEY TO TOMORROW



"3M" is a registered trademark of Minnesota Mining and Manufacturing Company, St. Paul 6, Minn.
General Export: 99 Park Avenue, New York 16, N. Y. In Canada: P. O. Box 757, London, Ontario.

popular aids in promoting any phase of safety. To get results, they must have careful planning, proper timing and close supervision. Promotion and showmanship are essential.

Sound slidefilms with recorded sound can be used effectively with groups of any size seated close enough to the screen to see details. Individual 35 mm slides, preferably in color and showing local scenes also can be used with comment by the safety director or a supervisor. The display should be tied in with a discussion period of 15 to 20 minutes. A comfortable, well-ventilated meeting room is important.

Suggestion systems can concentrate on housekeeping during the campaign. If no regular system is in operation, a contest may be held for the period with prizes for usable suggestions. Every suggestion should be acknowledged.

Offices have housekeeping problems, too, so include office workers in the campaign.

Landscaping

More and more, industries are recognizing the value of an attractive setting. Newer plants, particularly in suburban surroundings where space permits, have done much to beautify their grounds. Expenditures for trees, shrubs, grass seed, and fertilizer by industrial plants amount to a sizable sum each year.

For a Safer Church

Thanks to the leadership of Prof. C. O. Jackson, of the University of Illinois, the First Methodist Church of Champaign has been setting an example in correction of hazards on church property. Here is his recent progress report on the church's safety activities:

IN MY LAST LETTER I told you we now have a special rail atop the too-low balcony rail. This has proved to be very popular with

our congregation. Many place one hand on the rail during the hymns and make full use of it when moving in and out of seats in the front row. So far, no one has mentioned any interference with seeing the preacher.

We have a new railing along the stairs leading to the basement from the choir loft, something much appreciated by the choir. Ventilation in one of the first-floor kitchens has been corrected to remove the hazard of using a gas stove.

A survey of wiring in the sanctuary has been authorized and action soon will be forthcoming. The rheostat, disconnected two years ago as a serious hazard, is to be replaced.

As we look around the church, particularly into many storerooms and corners, it would appear that, physically, our church is as safe as human hands can make it. We still are facing the continuing problem of having every person,

CUT COSTS on off-the-ground work

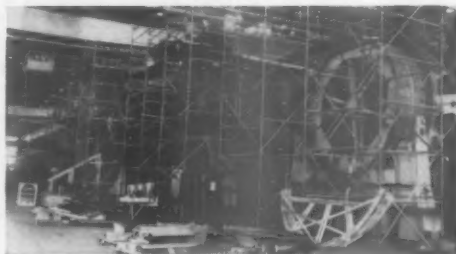
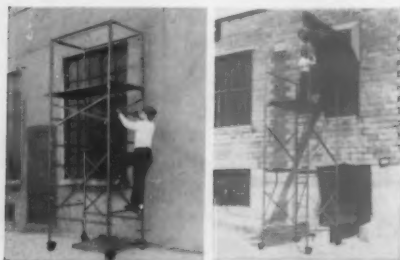
with MODERN, PREFAB PS CO. STEEL SCAFFOLDING

Regardless of the job — painting, cleaning, electrical, machinery work, window washing or glazing, building repair or special work — PS Co. Scaffolding can cut costs through...

- minimum job time due to freely moving, confident workers
- properly completed jobs
- faster equipment erection and dismantling
- and less time lost from accidents

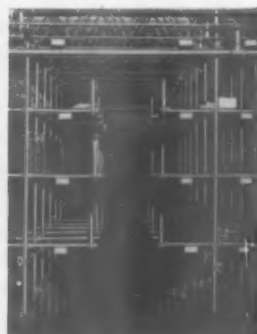
"Trouble Saver"® Rolling Scaffolds

Below, left, 3'-wide scaffolds with built-in ladders help on inside, outside work. Right, 5'-wide scaffolds provide correct height for hoist repair. Interlocking frames can be added to both for increased height. 2'-wide ladder Scaffolds also available.



"TubeLox"® Scaffolding

Made of only four basic parts, this scaffolding is erected to conform to any shape, size or contour. Adjustable couplers and tubes of various lengths permit unlimited design. Above, workers get all around curved shapes of atom subs. Right, couplers and interlocking steel tubes make heavy-duty storage racks.



For complete information on scaffolding and ladder equipment engineered and designed to help you cut costs on any industrial work... write for Bulletin G205RR.

FOR GREATER SAFETY...EFFICIENCY...ECONOMY



THE PATENT SCAFFOLDING CO., Inc.

38-21 12th Street Dept. NSN, Long Island City 1, N. Y.
1550 Dayton Street, Chicago 22, Ill.

West Coast: 6931 Stanford Ave., Los Angeles 1, Calif.

In Canada: 355 Dufferin St., Toronto

Circle Item No. 43—Reader Service Card

young and old, assume responsibility for not creating any new hazards and for reporting any they notice. That, I needn't add, is a difficult task.

The traffic problem outside the church also is being taken care of, thanks to help of the Boy Scouts and a traffic policeman. Publicity has been carried in the church paper and in flyers passed out to the congregation. Plans are complete, posted, and in some cases practiced, for orderly movement of youngsters out of the building, should it ever become necessary because of fire or other emergency.

Our chief problem centers around a four-story frame apartment building, containing 29 small apartments, only 10 feet from the church. This dwelling was purchased recently to be used as building space for enlargement of the parish house. Because city heat will be cut off within two years, the development and house committees have taken the stand that nothing be done beyond changing doors to swing out, add-

ing exit signs, installing a few fire extinguishers, and repairing dangerous wiring in halls.

Adding circuit breakers appears to be an unnecessary expense to the committees, even though the building is a firetrap. On our inspection we found several boxes containing over a dozen discarded fuses, and some 20's and 30's under the fuse boxes!

Our committee, of course, has no power beyond making surveys and recommendations. When I review our progress since May 1955, I feel it has been phenomenal, but we seem to have reached a stalemate on the tenement next door. We can only hope that nothing will happen to the building or its occupants or to our church before the tenement is torn down.

We have a new minister—one of the finest we've ever had. Recently, he remarked that the two things he was most concerned about in a church were the spiritual life of its people and their all-too-short stay in this place of worship.

Fishing Fleet Safety To Be Studied

A \$25,000 contract for development of a vessel safety program among New England fisheries has been awarded to Ebasco Services Incorporated, New York engineering, construction, and business consulting firm, the Department of the Interior has announced.

The study will provide better safety conditions for men of the fishing fleet and for reduction of personal injury insurance costs. This project is part of a broad research effort on New England fishing fleet insurance problems. The contract was awarded by the Bureau of Commercial Fisheries, United States Fish and Wildlife Service.

Hull and personal injury insurance costs are one of the important items of expense in New England fisheries. Examination of hull insurance problems recently has been completed.

The safety study is to be concluded in a year.

SAVE MONEY.. "Gold Medal" LADDERS

Buy Quality-Built

**Last Longer—cost less to use
More safety and design features**

"Gold Medal" Ladders are carefully manufactured of only the best, selected materials. Special features provide maximum strength and safety in use, convenience in storage and light weight for easy handling. Their longer life means lower over-all ladder costs to you.

PS Co's nation-wide sales organization is thoroughly experienced in helping you get the *right* ladders for your needs. Reach your local representative through your 'phone directory under ladders, "Gold Medal".



FOR GREATER SAFETY...EFFICIENCY...ECONOMY

THE PATENT SCAFFOLDING CO., Inc.

38-21 12TH STREET, DEPT. NSN, LONG ISLAND CITY 1, N. Y.
1550 DAYTON STREET, CHICAGO 22, ILL.
Branches in all Principal Cities

This is only one of a complete line of "Gold Medal" Wood Ladders *quality-built* for greater safety, efficiency and economy of use. Included are: Step Ladders for electricians, painters, carpenters and other trades; Heavy-Duty Step Ladders; Single and Extension Ladders and Platform Stages. Write for Catalog L-71-RR.



**It warns men
he can't!**



BULLARD MECHANICAL Back-Up Alarm

Almost every day on some crowded job site, with trucks maneuvering forwards and backwards, a driver grinds into reverse... rear vision is blocked... then... tragedy!

This simple, failproof, mechanical back-up alarm never forgets to warn men behind. A loud klaxon-like bell rings the minute wheels turn in reverse. It is a complete self-contained unit that can be easily installed on almost all vehicles with conventional wheels.

Write for technical literature, installation instructions and test reports



E. D. BULLARD COMPANY, Sausalito, California
Circle Item No. 45—Reader Service Card

PERSONALS

**News of people in safety
and related activities**

ASA Re-elects Hallowell President for Third Term

H. THOMAS HALLOWELL, JR., president of Standard Pressed Steel Company, Jenkintown, Pa., has been re-elected president of the American Standards Association for his third consecutive term.

JOHN R. TOWNSEND, special assistant, Office of Assistant Secretary of Defense (Research and Engineering), was elected vice-president. He succeeds **VAN H. LEICHLITER**, president, American Wire and Steel Division, U. S. Steel Corporation. Mr. Townsend was a former director of Materials and Standards Engineering for Bell Telephone Laboratories and for Sandia Corporation.

NFPA Appointments

DEUEL RICHARDSON has been appointed public relations manager for the National Fire Protection Association. He succeeds **Robert W. Schuette** who is establishing his own public relations office in Boston. Mr. Schuette will continue to serve the NFPA as consultant.

Mr. Richardson previously handled public relations activities for The New England Council, serving also as radio-TV director and as managing editor of *The New Englander*, the Council's monthly magazine. He has an extensive background as an executive in broadcasting. He has managed radio stations in New York and Massachusetts.

REXFORD WILSON has been appointed to the NFPA staff as engineer, Fire Record Department. Previously he was an inspector with the Factory Insurance Association, assigned to the Philadelphia area. He received the degree of B.S. in Electrical Engineering from the University of Massachusetts, completing his education there following military service in Korea.



**YOU CAN PUT
SAFETY
MESSAGES**

**RIGHT IN
THEIR HANDS**

Here's a unique and effective way to get safety messages read. And you know — and the National Safety Council confirms — that safety messages which get read — do help reduce accidents.

Two-way help for your Safety program

AJAX Cups can help... because they put their imprinted safety messages right in your worker's hand, several times a day, at just the moment he is relaxed, receptive, most likely to read.

Plus the fact that these crisp, clean **AJAX Cups** provide the most convenient, comfortable drinking water service, boost employee morale, and reduce the hazard of transmitted infections.



AJAX® CUPS — wedge-shaped, easy to hold, dispense open, ready to drink from; in 4, 6 and 7 oz. sizes, imprinted with assorted stock safety messages at no extra cost—or your own message to order.

AERO® CUPS — for those who prefer a flat-bottom cup; in 3, 4, 5 and 6 oz. sizes. Also with stock safety messages or your own message to order.

Get the full story — ask your industrial distributor or paper merchant for folder giving full details about **AJAX** and **AERO** Cups and equipment or write to



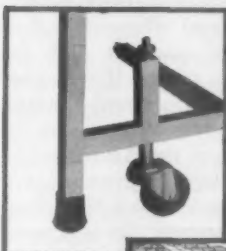
**UNITED STATES
ENVELOPE COMPANY**

General Offices:
Springfield 2, Massachusetts
15 Divisions from Coast to Coast

Circle Item No. 44—Reader Service Card

National Safety News, April, 1958

Work Safely on 1 to 12 Step Ladder-Stands



Roll Easily!

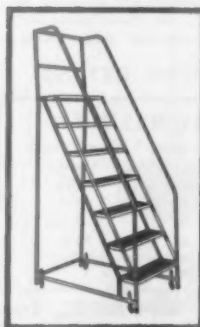
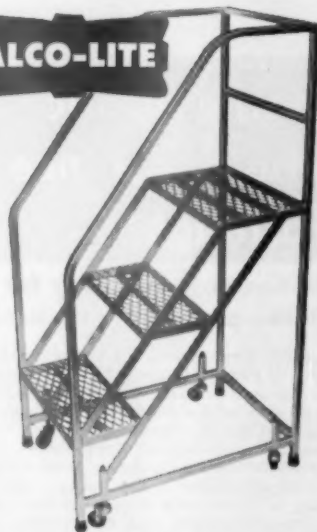
Special casters retract automatically under users weight — 9 steps and over feature foot activated front caster brake.

Sturdy!

SQUARE tubular steel frame. All-welded steel construction. Safe expanded metal treads.



ALCO-LITE



Special taper lets you stand closer to your work. Entire unit finished with rust-resistant aluminum coating. FREE CATALOG!

ALUMINUM
LADDER CO.

Dept. IIN
Worthington, Pa.

Circle Item No. 47—Reader Service Card

National Safety News, April, 1958

PAUL WORSECK has been appointed manager of safety and welfare for the Lehigh Portland Cement Co., Allentown, Pa., succeeding H. G. COLLINS, retired.

Mr. Worsack joined Lehigh in 1948 as safety and welfare representative and has been assistant manager of that department since March, 1953. He has served as a member of the executive committee of the Cement, Quarry and Mineral Aggregates Section, National Safety Council, for many years and is currently first vice-chairman.

Mr. Collins started with Lehigh in 1927 as a concrete engineer and in 1935 was transferred to the research laboratory. He joined the department of safety and welfare in 1943, became field director in 1945, and manager of safety and welfare in 1946. During the past 12 years he has been a member of the Accident Prevention Committee of the Portland Cement Association and the board of directors, Lehigh Valley Safety Council.

ERNEST LEVENS has been appointed to the newly-created position of coordinator of safety and industrial hygiene, by American Potash and Chemical Corporation.

Mr. Levens was head of the organic chemistry section at the company's main research laboratory at Whittier, Calif., since the laboratory was opened in March 1953.

In the new position he will be responsible for developing standards of safety and health for manufacture, storage, shipping and use of new chemicals being developed by the company.

C. ROBERT LOVE of Los Altos, Calif., has been named safety officer for Stanford University.

Mr. Love, formerly with an electronics firm, will develop a program of inspection and accident prevention for all departments in the university in coordination with campus fire, police, and health service departments. He will work under S. F.

your
weather eye
that never
closes



It sees all, warns everybody. The Conalart II, in a new system for Emergency Weather Warning authorized by the FCC, the U.S. Weather Bureau, and the U.S. Air Force. You no longer must depend on your radio or telephone. You no longer must tie up vital phone lines yourself. The Conalart II does all the listening and all the warning.

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The FCC has authorized the use of present Conelrad Monitors in this new system of Emergency Weather Warning. For the full story, see the Kaar Conalart II monitor on display in the FCC and U.S. Weather Bureau buildings in Washington, D.C., or fill in the coupon below.



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Post, assistant business manager of the University.

From 1947 to 1951 he was an FBI agent at various stations, becoming resident agent for San Mateo County, Calif., in 1949. He left federal service in 1951 to become safety and security officer for Eitel-McCullough Inc.

A past-president and current member of the executive board of the Mid-Peninsula Safety Council, Mr. Love is a member of the Northern California executive council of the American Society for Industrial Security, a co-founder of the Pacific Coast Industrial Security Council, and a member of the Bay Counties Peace Officers Association.

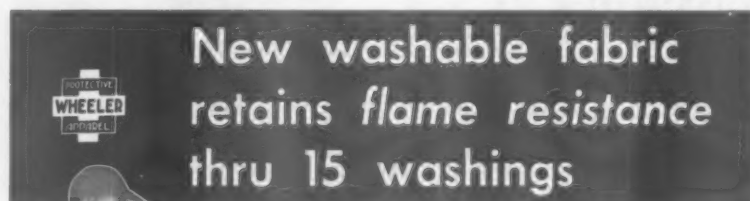
WILLARD F. STERNE, pioneer in industrial safety, is the new president of American Allsafe Company, Inc., Buffalo, N. Y. He has been vice-president and manager of the company for a number of years and succeeds C. R. Holzworth, deceased.

Mr. Sterne began his career in industrial safety with the American Radiator Company in 1920. In 1925, with Joseph Silbert of Buffalo, he organized the Buffalo Safety Supply and Service Company, which later was renamed the American Allsafe Company, Inc.

The company now is in its own building at 1245 Niagara Street, Buffalo, for warehousing, executive and general offices. The firm also occupies space at 1200 Niagara Street, where it manufactures safety devices and clothing.

Mr. Sterne was a founder of the local chapter of the American Society of Safety Engineers and founder of the Western New York Safety Conference. He is a member of the Safety Equipment Manufacturers Association and was first director of the Industrial Foreman's Safety School under the auspices of the Buffalo Chamber of Commerce.

One of the founders, and a vice-president and director of DuBois Plastic Products, Inc., Mr. Sterne



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F. P. W., a new green flame-proof washable fabric that retains its flame resistance thru 15 washings by laboratory tests! This longer life cuts your replacement costs to the bone. Hard finish sheds sparks and light molten splash. F.P.W., along with Wheeler quality workmanship is unbeatable.

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5	0	3	2 3/4
10	0	4	2 13/16
15	0	6	3 1/4

*Char Length is still slightly less than that permissible (3 1/2") Commercial Standard CS 129-47, Page 3.

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also is director and secretary of Sterilon Corporation, manufacturers of hospital and pharmaceutical specialties.

RETIREMENTS

Roy Godwin Retires

ROY M. GODWIN, manager of the Safety Department of Philadelphia Electric Company, retired March 1 after 40 years in accident prevention work.

After serving the U. S. Government as a design engineer, Mr. Godwin entered the field of accident prevention and fire prevention in 1918 with the Barrett Manufacturing Company in Philadelphia. In 1921 he entered the service of United Gas Improvement Company and was in charge of accident prevention and claims for Northern Indiana Gas and Electric Company. In 1927 he was transferred to Philadelphia Electric Company as superintendent of safety. Later he became safety director and then manager of the



Roy M. Godwin

safety department, remaining in that capacity until his retirement. During this period the company made outstanding reductions in accident frequency and severity.

Mr. Godwin is a past president

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...with
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Fire Hazards from Smoking are a problem
EVERYWHERE.

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START—with SIPCO DUNK-
ING STATIONS.

Heavy duty CAST ALUMINUM canisters—guaranteed 3 years against breakage. Partly filled with water, they drown the "smoke". NO FIRE HAZARDS — NO ODORS — NO UNSANITARY CONDITION.

Lift off the canister, flip back the lid, dump it and the cleaning job is done.

Available in over a dozen different STANDARD and JUMBO SIZE models. Choice of black crinkle or bright polished DELUXE finishes to suit your particular requirements. NEAT, ATTRACTIVE — USED EVERYWHERE — OFFICES, CLUBS, LOUNGES, HOSPITALS, HOTELS, SHOPS, RESTAURANTS, INSTITUTIONS, SCHOOLS, ETC.



NEW MODEL 4J

Designed for permanent mounting on walls, posts, columns, etc. in public areas. Eliminates pilfering problem. JUMBO size canister furnished with light weight, rugged glass-fiber inner-liner. Flip back the lid—lift out the inner-liner and dump it. Inner-liner fits all JUMBO size SIPCO canisters and is available separately.

MODEL 1JD

JUMBO size DELUXE FLOOR MODEL. Heavy weighted base and attractive, eye catching sign. Height 42"—weight 26 lbs. Ideal for halls, aisles, landings, etc. Also available less sign (MODEL 1JWS). WRITE FOR ILLUSTRATED BROCHURE.

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Circle Item No. 51—Reader Service Card

National Safety News, April, 1958

McDONALD PRODUCTS

Safety Designed...

with comfort in mind!



McDonald SNAKE BITE KIT

A complete compact first aid unit for emergency treatment during the vital first five minutes. Simple instructions permit immediate effective use by anyone. Write for bulletin and prices.

POWERFUL SUCTION CUP CAN
BE OPERATED WITH ONE HAND!



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Manufacturers & Distributors of
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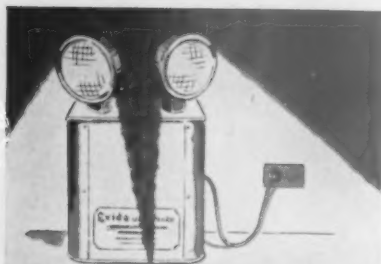
5721 W. 98th St., Los Angeles 45, Calif.
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Please send information and prices on
Snake Bite Kit.

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Exide Lightguard® can save you \$1000's

When power fails and regular lights go out, Exide Lightguard goes on... instantly and automatically. Protects you against heavy losses. Eliminates risk of panic, injury, damage, theft. Install Exide Lightguard units. There's a dealer near you. For free bulletin, send coupon.

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Send me your bulletin on Exide Lightguard emergency lighting units.

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18

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of the American Society of Safety Engineers and a member of the Veterans of Safety. He has served on the National Safety Council's Board of Directors and has been general chairman of its Public Utilities Section. Other offices held include: chairman of the Accident Prevention Committee, American Gas Association; chairman of the Accident Prevention Committee, Pennsylvania Electric Association; chairman of the Board of Governors, Philadelphia Safety Council, and service on committees of the American Standards Association, U. S. Department of Labor, and National Electrical Safety Code Revision Committee.

A. B. BUTT, Jr., has retired as safety director for Virginia Smelting Company, West Norfolk, Va. He joined the company in 1931 and started a formal safety program the following year. In 1933 he became supervisor of the zinc sulphate and methyl chloride operations. In 1941 he was promoted to personnel manager and safety director.

Mr. Butt has served as a director of the Virginia Safety Association and has been active in the Portsmouth Safety Council and the Portsmouth Area Community Chest. He is a past president of the Hampton Chapter of the American Chemical Society.

HENRY B. MERCER has been appointed safety supervisor for the company.

HARRY E. ROETHE, for the past 18 years technical assistant to the director of the Northern Regional Research Laboratory, U. S. Department of Agriculture at Peoria, Ill., retired February 28.

Since organization of the Laboratory in 1940, Mr. Roethe has been its safety engineer and under his leadership an excellent safety record was established. He wrote a safety manual for the Laboratory and assisted in preparing others for USDA Agricultural Research Service.

Employed by the Department

of Agriculture since 1917, Mr. Roethe is an authority on spontaneous heating and dust explosions. He has been secretary of the Farm Fire Protection Committee and the Spontaneous Heating and Ignition Committee of the National Fire Protection Association. He has written numerous articles on the prevention of dust explosions and fires in agricultural products.

Obituary

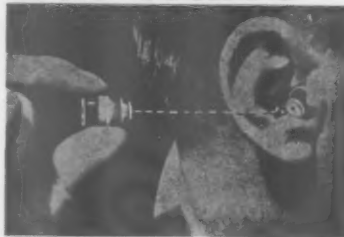
FRANK J. SLUZE

FRANK J. SLUZE, refinery safety coordinator for Ashland Oil & Refining Company, Ashland, Ky., died February 12. He was 61.

Born in Mt. Carmel, Pa., in 1897, he later graduated in mining engineering from Pennsylvania State College. Initially, he was active in accident prevention

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That! NO... NOT AN EAR PLUG—instead, a scientifically developed sound control that protects the ear drums without interfering with normal conversation or sound. We'll gladly send you a pair for actual demonstration. Then you will find out why they are used and recommended for plant, field, and road-workers where NOISE is a HAZARD and a definite deterrent to normal production. Send for your demonstration pair of Lee Sonic EAR VALVS TODAY—No obligation.

SIGMA ENGINEERING COMPANY
1491 Vine St., Dept. F3, Los Angeles 28, Calif.

Circle Item No. 54—Reader Service Card

National Safety News, April, 1958

efforts for the coal industry and as a safety engineer and training expert for Midland Ordnance. Mr. Sluze joined the Ashland Oil staff in 1943 and had since been engaged in safety supervision and training.

He spoke on safety methods before civic, educational, and industrial groups and was a member of several safety organizations. These included the Veterans of Safety, the American Society of Safety Engineers, and the Accident and Fire Prevention Committee of the American Petroleum Institute. He was a past chairman of the Accident and Fire Prevention Division of the National Petroleum Association.

Mr. Sluze is survived by his widow, two sons, and a daughter.

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32 years old; college graduate; 6 years casualty insurance, construction and industrial safety experience desires supervisory position. For a detailed resume of a man who can produce results, write Box 439, NATIONAL SAFETY NEWS.



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Circle Item No. 55—Reader Service Card

National Safety News, April, 1958

Calendar Contest Winners For January



What would your Safety Saying have said?

Mrs. Paulene Young, stenographer for Corn Products Refining Co., North Kansas City, Mo., won the \$100 first prize in the National Safety Council's "Safety Saying" contest with this line:

A "sign" of intelligence is to obey one!

The contest appears monthly on the back pages of the Council's calendar. The theme for the January contest was "Obey Signs."

Second prize of \$50 went to Kenneth Wilson, an engineer with Public Service Co., Denver, Colo. His entry was:

You didn't stop or look—now LISTEN!

Charles Kram, Jr., of Shiner, Tex., won third prize of \$25 for this line: Warning, warning everywhere, and not a stop to think.

The 30 winners of \$5 prizes are:

Mrs. Albert LaVigne, (Individual Member), Chesaning, Mich.

Mrs. Albert L. Fulk, (Individual Member), Arlington, Calif.

Peter Jaretsky, Leslie Co., Lyndhurst, N. J.

Mrs. Herbert Turner, Mead Corp., Harriman, Tenn.

Miss Beatrix L. Baldwin, Bemis Bro. Bag Co., Kansas City Mo.

Mrs. Marjorie H. Long, Haughton Elevator Co., Div. of Toledo Scale Corp., Toledo, Ohio.

Miss Theresa D. Janeway, Tennessee Valley Authority, Chattanooga, Tenn.

Mrs. E. J. Wihera, (Individual Member), Concord Calif.

Alfred Strouts, Coos Bay Pulp Corp., Div. of Scott Paper Co., Empire, Ore.

Mrs. Deborah Schneider, (Individual Member), Minneapolis, Minn.

Thora Rininger, (Individual Member), Akron, Ohio

Mrs. Alfred Reinking, (Individual Member), Nashua, Mo.

Mrs. E. J. Schnaitter, Pickands, Mather & Co., Hoyt Lakes, Minn.

Mrs. Margaret Pillow, U.S.D.A.,

Circle Item No. 54—Reader Service Card

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If climber starts to fall, device locks in a notch automatically, instantly. Holds securely. Limits fall to 7 inches.

PREVENTS DEATH AND INJURIES — FROM FALLING

AUTOMATIC, POSITIVE. Will instantly catch and hold workman if he starts to fall, even if unconscious. Requires no attention from climber; he climbs in normal manner. Inexpensive. Easy to install; 3 men can clamp it to ordinary ladder in few hours. Clamps to any rung ladder, peg ladder, pole or framework. No welding or cutting. Notched rail hot-dipped galvanized. Entire equipment rust and corrosion proof. Can be kept free of ice by applying heat inside the carrier rail. In use approx. 10 years. Approved by Safety Engineers and Govt. Agencies throughout country. Patented. Manufactured only by

SAFETY TOWER LADDER CO.
1024 Burbank Blvd., P.O. Box 1052
BURBANK, CALIFORNIA

Guide Pin Covers



PROTECT OPERATOR AND GUIDE PINS

Effectively guard against injury to operator, die and press on operations where bushings leave the guide pins. Protect pins and bushings from chips and dirt when entire pin and bushing are covered. Inexpensive, easy to attach.

Felt Oiler Ring in top units provides POSITIVE lubrication.



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Industrial Plants — Hotels — Caterers —
Camps — Air Lines — Government — Civil
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SYSTEM HAS PROVED ITS WORTH
IN ALL FIELDS OF MASS-FEEDING**



AerVOIDs provide . . .
Sanitary Vacuum Insulation -
A positive Health Safeguard!

To-day's "Modern" trend toward centralization of food preparation is a milestone toward Economy, Better Quality and Higher Sanitary Standards.

Into this new picture nothing fits like AerVOID's Portable, Stainless-Steel, High-Vacuum Insulated, food, soup and liquid Carrier-Dispensers. AerVOIDs alone provide the proven quality and durability to survive under rough usage, spreading their cost over a long period of uninterrupted service. All AerVOID Equipment, so indicated in our specifications is "In Compliance" with the sanitary construction requirements of the U. S. Public Health Service Ordinances and Codes.

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AERVOID Vacuum Insulated
Hot or Cold Food, Soup, Milk,
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SAFER HANDLING of INDUSTRIAL LIQUIDS!



Eliminate in-plant accidents caused by slick floors and spilled inflammables! This TOKHEIM Hand Pump, for use on drums or skid-tanks, has 8' hose—or spout outlet—prevents dangerous, wasteful slopping of oils and many other liquids. Speeds production. Pumps 20 gallons per 100 strokes. Ask your dealer, your Tokheim representative or write for list of liquids.



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Agricultural Research Center, Beltsville, Md.

Herbert J. Peters, Phelps Dodge Corp., Morenci, Ariz.

Mrs. L. P. Holleran, Crucible Steel Co., Pittsburgh, Pa.

Mrs. Boyd Gunning, (Individual Member), Norman, Okla.

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Artilla Clarkson, School District No. 400, Richland, Wash.

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G. W. Benson, Canadian Industries, Ltd., Edmonton, Alberta

Mrs. J. K. Wilson, (Individual Member), Rowayton, Conn.

E. C. Tullock, The Magnavox Co., of Tennessee, Greeneville, Tenn.

L. H. Johnson, The Chemstrand Corp., Pensacola, Fla.

George Jasper, Alpha Portland Cement Co., LaSalle, Ill.

Miss Grace L. Wiggins, Plantation Pipe Line Co., Atlanta, Ga.

Stanford Lando, Standard Oil Co., (Ind.), Whiting Ind.

Goggles Save His Remaining Eye

Because he had only one eye, William Schick, a maintenance machinist for the *Milwaukee Sentinel*, was required to wear goggles on the job. For other employees of the newspaper plant, eye protection was urged but not demanded.

Thanks to management's insistence on eye protection, Mr. Schick can still see. While grinding a tool on the job recently, it bounced off the whirling grinder, hit the guard and flew directly toward his remaining good eye.

Schick, who had lost his other eye in a childhood accident, admits that prior to this accident he didn't believe in safety glasses.

"Believe me, I'm a booster for them now," he says.

Shortly after this accident, goggles saved the eye of a monotype operator. This brought the number of members of the Wise Owl Club in the *Sentinel* plant to five. This club, sponsored by the National Society for the Prevention of Blindness, is composed of persons whose eyes have been saved by wearing eye-protective equipment.

ILO Urges Job Health Measures

A resolution on protecting workers against occupational diseases and poisoning was among those adopted by the Chemical Industries Committee of the International Labor Organization, during its recent Fifth Session in Geneva.

The resolution, adopted unanimously, states that: the health of workers should be a primary consideration in the design of premises, plant and equipment; consultation should take place at the earliest possible stage between the chemist, engineering staff and occupational health specialists, to insure that the design is devoid of elements which might adversely affect health; knowledge of the risks of health is an essential element in the establishment of adequate protective measures.

The resolution recommends that: basic training of chemists, engineers and technicians should include instruction in safety and health; encouragement should be given to the training of technicians in industrial hygiene and developing teaching of occupational health subjects in medical schools; on the question of plant-level training, adoption of various measures in order that the personnel-management, medical and allied personnel, supervisors, foremen and workers—should be fully conscious of the threats to health; scientific research into all aspects of occupational health should be stimulated.

Another part of the resolution discusses technical procedures for protection and medical measures and emphasizes the need to replace, where possible, harmful substances by harmless substances or those less harmful.

Under the heading of action to be taken at the international level, the resolution invites the Governing Body of ILO to proceed with various studies and investigations with the help of experts. The ILO is also to keep its list of dangerous substances up to date and to continue preparing basic information to appear on warning labels for containers of dangerous substances.

Circle Item No. 60—Reader Service Card



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All new TUC-CUP

* Lens slides easily into frame and locks in position, but can be easily removed or replaced by the wearer.

TUC-CUP is the only spectacle-type safety goggle with cup-type lenses which fit over all prescription glasses and provide complete all-around protection.

Integral contoured visor provides over-eyes protection. One-piece,

shatterproof Wedge-lock Lenses are specially designed with full cup green tint side shields. They provide complete side and under eyes protection.

For details, see your authorized EYE SAVERS supplier or write direct.

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Quality Eye Protective Equipment

Made by the Leaders in Plastics



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SURETY
GLOVE COMBINATION
SOLVES MORE
HAND PROTECTION
PROBLEMS

THAN ANY OTHER
WE KNOW



TEST

AT OUR EXPENSE Send for slide rule showing gloves best to resist chemicals, acids, oils, solvents, etc. Tell us your glove need, too... we'll send sample pair.

In Canada: Safety Supply Co., Toronto

SURESEAL
(HYCAR)

TURN-CUFF
INDUSTRIAL GLOVES

Tests prove Sureseal's amazing long life—ten times and more wear than other materials. Since Surety makes gloves from all materials you may be sure of test impartiality.

Adding Surety's famous safety feature, Turn-Cuffs, the barrier to dangerous liquids, provides the maximum hand safety and comfort to make willing hands and willing workers. Ask your jobber or write Dept. N.S.N. The Surety Rubber Company, Carrollton, Ohio.

Rocket Experimentation Not for Amateurs

A number of injuries and fatalities have resulted from amateur experimentation with fuels and rockets—in some cases involving unqualified supervisors of such projects. Few chemists or physicists are qualified to carry on such experiments or to supervise them, since the science of rocketry

requires specialized knowledge and training.

Because of this experience and the great potential danger, the National Safety Council opposes amateur experimentation with rockets and rocket fuels.

Firing of rockets, except on approved test ranges, endangers not

only the participants, but the general public as well. These devices and fuels are extremely dangerous, even in the hands of highly qualified scientists, working under the strictest of controlled conditions. Serious injuries and fatalities have occurred even among these groups in the course of their assigned duties.

Most of the states, and many municipalities, have enacted legislation which outlaws the manufacture, sale, and firing of fireworks by unlicensed persons. Since rockets and rocket fuels, in their preparation and in the quantity required, are infinitely more lethal, the National Safety Council calls upon parents, teachers, and responsible public officials to ban their use by amateurs, immediately.

In adopting its policy, the National Safety Council does not imply that it is opposed to the encouragement of the study of the chemistry, physics, and mathematics of rocketry by the youth of the nation. On the contrary, the Council would strongly urge that opportunity to study these fields, including the safety principles, be accelerated and strengthened so that more and more students will be ready to enter into studies in the higher realms of these sciences, thus preparing themselves for true scientific experimentation in the problems of space.

List Films on Material Handling

Material Handling Films is the title of a 24-page catalog listing more than 60 material-handling training films. All films listed in the booklet are offered for loan free of charge by member-companies of The Material Handling Institute, Inc. The films in the catalog cover a wide variety of material-handling subjects, and are grouped into 12 major categories. Under each film listing is a brief description, total running time, ordering information, and whether the film is in color or black and white.

This free catalog may be obtained from The Material Handling Institute, Inc., Educational Division, One Gateway Center, Pittsburgh 22, Pa.

Circle Item No. 62—Reader Service Card

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Guard Against Property Damage

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NOT THIS

For car stops, on loading platforms, temporary sidings, railroad ferries, under tipples, for cars on grades and traveling cranes.

Used and recommended by leading Steel Companies, Manufacturing Plants, Mines, Grain Elevators, Cement Plants and Quarries.

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INDUSTRIAL PRODUCTS COMPANY

2850 N. Fourth Street • Philadelphia 33, Pa.

SAFE!

CLEAN AUTOMOTIVE & INDUSTRIAL PARTS
3 WAYS!

1. Continuous Flow Hose
2. Air Agitated Soaking Tank
3. "Super Power" Jet Air Gun

A must in every service shop!

Kleerflo SUPER CLEANMASTER
MODEL 50

Write for Literature:

Model 30 (less Jet Air Gun) also available

America's Foremost Producer of Parts Cleaning Equipment

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2840 4TH AVE. S. • MINNEAPOLIS, MINN.

Circle Item No. 63—Reader Service Card

Poison Ivy Sufferers Can Buy Immunity

POISON ivy and poison oak are fading menaces for nature lovers and outdoor workers. A new method of immunization is now available commercially on a nationwide scale.

The product, called Aqua Ivy, was developed by Miss Margaret Strauss, director of the allergy laboratory at University Hospital, New York University, Bellevue Medical Center. It has been tested for 10 years by a group of physicians using it on more than 1,000 patients. National distribution has been started by the Allergens Division of Chemical Specialties Company.

Aqua Ivy differs from former immunization products, because it is made with a salt-water base natural to the body. The dried leaves are dissolved in pyridine, a non-toxic solvent, then precipitated with water and alum solution, and finally bottled in salt water.

Inoculation is said to be painless, since a hair-fine needle can be used and the salt-water base is natural to the body, easing its way into the tissues without shock. Former preparations were made with alcohol or oil for a base and caused considerable pain when administered. The alcohol and oil were quickly absorbed by the body, so low level doses had to be given.

Because Aqua Ivy, with its alum-precipitated pyridine base, is absorbed slowly it is possible to give larger dosages which result in the higher percentage of effectiveness reported. This slow absorption also makes it safe. No bad results or side effects ever have been reported by physicians using it on more than 1,000 individuals. Bad side effects, sometimes worse than the poisoning, have long been the bane of immunization products. Through the years chemists have worked to achieve a solution powerful enough to be effective and yet safe.

In the *Journal of Allergy* (September 1956), Dr. Richard E. Passenger of Newburgh, N. Y.,

and Dr. Will Cook Spain, professor of clinical medicine (Allergy) at Postgraduate Medical School, New York University, wrote: "Aqua Ivy, being alum-precipitated, is very slowly absorbed, so that larger dosages are administered both as an initial dose and as a final concentration in the prophylactic immunization series.

"This slower absorption and high dosage level, which is greater than that obtainable with the alcoholic or oily ivy prepara-

tions, probably explains in part (1) the freedom from toxic reactions and (2) the more successful clinical results seen with this Aqua Ivy preparation.

"Aqua Ivy, being in the body for a longer period of time and in greater concentration than has heretofore been possible with other preparations, gives the body defenses a greater opportunity to develop immunity... There was no incidence of nephritis even when Aqua Ivy was administered

Circle Item No. 44—Reader Service Card

SAFETY FACTS for Industry



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FIRST
FULLY ADJUSTABLE
BO'S-N'S
SWING



SAFER..

MORE COMFORTABLE.
5,000 LB. TENSILE STRENGTH
NYLON WEBBING IN RISER
AND WAIST STRAPS... 3 INCH, 4-PLY COTTON
WEBBING BODY PAD... OPTIONAL WOOD
SEAT STRAPS ONTO BELT, CANNOT FALL OFF.

DON'T TRY THIS!



WORK FASTER

OPENS WORKING AREA—NO RISER STRAPS IN THE WAY...

* FALLS ARE THE LARGEST SOURCE OF WORK INJURIES... AND FALLS TO A DIFFERENT LEVEL HAVE THE HIGHEST AVERAGE COST PER CASE OF ALL COMPENSABLE WORK INJURIES. * FROM 1951 ACCIDENT FACTS

SPREADER
CAT. NO. 182



Greater working convenience.
Greater production. Do a Better Job—Faster!

WOODEN SEAT
CAT. NO. 161



When ordering Bo's-n's Swing with wooden seat, order as follows: No. 180 with No. 161.

ROSE MANUFACTURING CO.
2700 W. BARBERRY PLACE
DENVER 4, COLORADO

Safe-Hi
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SAFETY EQUIPMENT and APPLIANCES

ACME GAS MASKS

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Watchmocket Eye Savers, Face Shields, Helmets, Hoods, Masks, Safety Signs, Cans, Belts, Boards, Stretchers, Fire-Blankets, Curtains, Goggle Cleaning Cabinets, Eyewash Fountains, Emergency Showers, All Types Safety Lights, Smoking Stands, Traffic Mirrors, Floor Markings, and many other types of Safety Equipment.

Send for Our Safety-Material Handlings Mail Order Catalog

NEW JERSEY SAFETY EQUIPMENT COMPANY

299 Park Avenue

Orange 4-4372 and 4-3446

East Orange, N. J.

Circle Item No. 45—Reader Service Card

to children as young as two years of age."

Dr. G. Everett Gaillard of White Plains, N. Y., has reported in scientific journals he has obtained satisfactory results from treating 413 patients with Aqua Ivy. In the *New York State Journal of Medicine* (July 15, 1956) he wrote, "It would appear that after three years of treatment immunity may be lasting."

Aqua Ivy will be of greatest value in protecting children at-

tending summer camps or boarding schools in the suburbs, coast guardsmen, men in the armed services, sportsmen on fishing and hunting trips, and outdoor workers forced to earn a living where the plant abounds.

Poison ivy is most feared by outdoor workers who suffer poisoning regularly with loss of time from their jobs. These workers include highway and water department employees, laborers on railroad tracks and waterfronts,

repairmen for telephone and electricity poles and wires, builders, tree surgeons and tree trimmers cutting tree branches to protect electric and telephone lines, agricultural workers, civil engineers, foresters, and naturalists. Poison is active even in the dead plants during the winter months.

Much of the research program with Aqua Ivy has been with outdoor workers. One outdoor worker in Altoona, Pa., who had suffered poison ivy dermatitis severely for nine consecutive years and had tried other means of immunization without effect, reportedly became immune after treatment with Aqua Ivy.

When he first visited his physician, the patient was suffering from the poisoning in an acute phase with lesions on his hands and arms. Since Aqua Ivy is used also in small dosages to treat active cases, shortening the period of suffering and building up future immunity, the worker was inoculated with this preparation.

He was relieved after the fourth injection, continued prophylactic treatment the two following years, and for five years since has had no recurrence, although still working around poison ivy.

The first clinical testing of Aqua Ivy was done by Dr. W. C. Spain on a group of 12 hypersensitive individuals who had been treated in previous years with other preparations without relief. Dr. Spain obtained successful results with Aqua Ivy. This information was reported in the *Journal of Allergy* (January 1946).

A series of five inoculations one week apart is recommended for the first year, with only booster shots necessary in following years. Indications are that immunization may be permanent after the third year of treatment.

Miss Strauss, who received her B.A. degree from Goucher College and her Master of Science degree from New York University, conceived the idea for Aqua Ivy when engaged in graduate studies at Johns Hopkins University. While doing research work with pyridine, she thought of poison ivy, with which she had been working. She decided to combine the two projects for an experiment.

Circle Item No. 66—Reader Service Card

FOOT-TOE-LEG Protection by "Sankey"



"SANKEY" IMPROVED FOOT GUARD

The metal shield (above) is designed to furnish a maximum amount of protection to the entire front of the foot—not merely the toes alone, but also to the instep against hazards from falling, rolling or flying objects, or from accidental tool blows.

- Absolute freedom of leg motion, utmost protection and comfort come with the leg-contour shaped "Sankey" fibre shin guard (right).
- Fibre knee-shin guard (right) provides flexible knee movement on jobs with both knee and shin hazards.

For more information write today

ELLWOOD SAFETY APPLIANCE CO.

225 SIXTH ST. — NSC ELLWOOD CITY, PA.



4 Boxes — 1000 Tissues Each
Size 4 1/2" x 10 3/4" \$7.00
Dispenser Bracket for tissue 75c ea.
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Water bottle with Spray Pump 35c ea.

NO-FOG

Lens Cleaning Tissues

Use Just Water, No Chemicals Needed

This new, chemically treated tissue is low in price and does away with expensive chemical sprays. Cleans and no-fogs goggles, eyeglasses and welding lenses with the addition of water only.

Tissues can be used several times. Contact your nearest jobber or write us for samples and literature.

Distributors wanted. Write for proposition.

CARHOFF COMPANY

11706 Kinsman Ave. • Cleveland 20, Ohio

Circle Item No. 67—Reader Service Card

The Nurse and Vision

—From page 33

occurred and the time they saw the patient. They were not referring to the patient who delayed reporting his injury but rather to persons who do not send a serious eye case to an eye specialist as soon as possible after the injured person reports to the medical department. They urge that a specialist's attention be given at once to serious cases. They were in agreement that it would be impracticable and unnecessary for them to see all industrial eye cases but they were emphatic in requesting that serious cases be placed under the care of an eye specialist as quickly as possible.

The second unanimous opinion was that the nurse should not be allowed to use ointments in emergency care. An ointment-filled eye often delays diagnosis and treatment.

Next on the list of limitations was the oft-quoted opinion that an eye containing an embedded foreign body in the cornea should have a sterile eye patch covering applied and the patient should be sent to an eye specialist. Most of the physicians cautioned me about the penetrating wound previously referred to.

All physicians agreed that too much emphasis could not be placed on the Water Irrigate, water irrigate, water irrigate treatment of chemical eye burns.

Some less serious but justifiable complaints were in reference to alleged rough handling while examining the eye, unsterile technique, failure to take an adequate history, giving the patient a prognosis or diagnosis.

One physician deplored the use of dirty eye charts in testing, poor illumination in the testing area and allowing the person to press his eyeball with his hand while covering it during an eye examination instead of being instructed to cup his hand or better still, being given a piece of cardboard to use as a shield.

Another physician commented on the lack of foresight in not introducing available modern techniques such as plastic irrigating bottles and plastic disposable

individual eye droppers. Outmoded eye cups and argyrol solutions were also looked upon with disfavor.

Some of the physicians remarked on the failure of medical personnel to sell management on the values of eye testing, eye examinations, and eye protection. They reminded me of the many occasions when an adequate eye examination had been the means of alerting the physician to other health impairments such as diabetes, high blood pressure, brain tumor, etc. The direct relationship of eyesight to general health is not appreciated enough.

All the physicians questioned were in agreement that the nurse should be provided with a means of testing visual acuity and that it is important that both eyes be tested at the time of the first visit to report an eye injury.

One nurse I know works in a plant where the eye hazards are numerous. She has made a campaign of assisting the employee in getting proper fitting prescription lens glasses wherever needed. Her plant management has installed a flashing red sign to operate on dry grinders when in motion. She sets a good example by wearing necessary equipment in stated areas when she is making her rounds. Every morning she checks to see that an extra pair of sterile goggles is placed on each machine so that there is no excuse such as: "I forgot my goggles." She has well-marked eye flushing machines in the areas where chemical splashing in the eye could occur and once a year she is the chief participant

in a safety meeting devoted to care of the eyes.

Perhaps you might say this nurse is over-emphasizing a single phase of an overall preventive medical program, but she found out through a review of several years of claims cases that the most costly and most frequent causes of injury in her particular plant were concerned with the eyes of the employees.

Another nurse worked in a printing establishment. Not only were there daily hazards of close work but there was the additional element of an aging plant population with aging processes affecting the eyes. She sold her management, her employer, and her supervisory men on an eye program. Production has increased; absenteeism has decreased and the economic state of the employees and the community has shown a gradual steady improvement.

Supervision should understand and cooperate fully with the program so that they will be in a position to answer all questions regarding the purpose of the program, scheduling of vision tests, eye protection methods, etc.

In eye health education, the nurse must work with all key groups in the industrial family. The personnel department is thus assisted in proper placement of employees. The safety department will be aided in the reduction of all accidents—not merely those of the eye—and production departments will learn that the working efficiency of the individual is directly related to his seeing ability.



FOR SAFETY'S SAKE... DAV-SON FLASHING SAFETY DIRECTOR

With Amazing Changeable Letter Slide Out Panel

Bright traffic light red, green spots flash "SAFETY FIRST." Color, motion, light bring eyes directly to message. Only DAV-SON has changeable letter design with removable panel for quick changes, peak attention. 98 red 3/4" and 250 black 1 1/2" acetate letters in compartment box incl. Size 18 1/2 x 29 x 6. Complete with lamp and U.L. Cord. \$39.75

Insist on genuine self-sealing cork back bulletin boards—hardwood frame. Sizes 12x18 and larger. With or without glass doors. \$4.15 up. Also with metal frames for inside or outside use.

A Dav-Son board for every purpose. Over 100 different sizes and styles to choose from. Dealer inquiries invited. If your dealer doesn't have the Dav-Son board you need write direct.

WRITE TODAY for big FREE 1958 Catalog

A. C. DAVENPORT & SON, INC., Dept. NSN
311 N. DESPLAINES STREET • CHICAGO 6, ILLINOIS

Around the Compass

—From page 48

schools is preparing a new generation for their responsibilities as drivers.

Essentially the program series, called *Six-Teens*, presents a palatable demonstration of what all good drivers should know about Michigan traffic laws, defensive driving techniques, and other aspects of safe driving.

As a half-hour program, it features a match between two high school teams of driver education students—six teen-agers. In three rounds involving driving skills, knowledge, and the ability to distinguish driving errors, each team may score sixteen points.

Omaha Council Uses Appeal to Morality

Ten outdoor advertising posters bearing the Council's name and

the slogan, "You Are Morally Responsible for Safe Driving," have been posted on large billboards at strategic heavy traffic locations in the Omaha area.

The Safety Council also is working with the Omaha Council of Churches (Protestant) and leaders representing other religious faiths, as well as with the National Safety Council's Church Safety Division, to stimulate greater public interest in safety's moral implications.

Circle Item No. 70—Reader Service Card

SAFETY BULLETINS

SPEED-UP

CAR UNLOADING TIME

SLOW DOWN

ACCIDENT RATES

with the

B & J SAFETY FRICTION WRENCH

The B & J Safety Friction Wrench dumps and winds up hopper car doors fast because it releases instantly, and operates with the slightest pressure. The extra long handle gives greater leverage, and also permits the employee to stand clear and out of danger.

The B & J Safety Friction Wrench is simply designed so that constant repairing is eliminated—no springs, bolts nor ball bearings to cause trouble; no panels or triggers to catch. Order a B & J Wrench today.

This advertisement is shown here posted on a Diamond Bulletin Board, another product of Safety First Supply Company.

SAFETY FIRST SUPPLY COMPANY

425 MAGEE STREET • PITTSBURGH 19, PA.



THE LOW COST
NO MAINTENANCE
NOISE ABSORBER

reduces
fatigue and
tensions

QUIET FACTORY NOISE with SONOSORBER

GUARANTEED RESULTS! FREE ENGINEERING
SURVEY, ANALYSIS and ESTIMATES. Write Today.

ELOF HANSSON, INC. ACOUSTICAL DEPT. NS 4-8
711 THIRD AVENUE, NEW YORK 17, N. Y.

*REG. U.S.
PAT. OFF.

Circle Item No. 71—Reader Service Card

Conference Committee Reviews Appraisal Procedures

The Executive Committee of the Conference of State and Local Safety Organizations met in Chicago on February 25 and 26 to review the field work done on surveys of seven local safety organizations which had requested the Inventory and Appraisal Service adopted by the Conference last October.

After review and minor modification of the appraisal procedures, the Executive Committee approved in general these procedures and authorized the Conference Secretary to mail complete minutes of the meeting to all chapters of the National Safety Council and to all other state and local safety organizations which have requested the appraisal service.

All members of the Executive Committee, including Chairman Joseph M. Kaplan and Vice Chairman Harry H. Brainerd were present. Committee members are: G. Ernest Bourne, Forst Lowery, James Plaskett, James T. Wadkins, Clinton W. Dreyer, Lennie Humphries, Stanley Peck, James K. Williams, William E. Billings, Estel Hack, Dan Hollingsworth, and Earl W. Smith.

North Carolina State Patrol Talks Safety

Traffic accidents can't be "talked away," says Maj. Charles A. Speed of the State Highway Patrol, Raleigh, N. C., but preventive measures can certainly be "talked up," as some 300 members of the Speakers Bureau of the Governor's Traffic Safety Council proved last year.

The North Carolina Patrol

major is in charge of the patrol's traffic safety division and coordinator of the exclusive orator's club.

"Our volunteer speakers and other safety officials made approximately 10,000 talks during 1957 on the single subject of traffic accident prevention," Major Speed declared.

The speakers division is an outgrowth of the Governor's Traffic Safety Council which was organized four years ago by Governor Luther Hodges. It numbers approximately 300 charter speakers who each carry a specially designed ID card signed by Governor Hodges and Motor Vehicles Commissioner Edward Scheidt, chairman of the Council.

Kemper Scholarships Announced

The Traffic Institute of Northwestern University has announced the 1958-59 Police Fellowship and scholarship program of the Kemper Foundation for Traffic Safety.

A total of 32 grant-in-aid awards will be made for the nine-month course, Traffic Police Administration, beginning on September 18, 1958.

Further information and application forms can be obtained from the Institute at 1804 Hinman Avenue, Evanston, Ill.

Traffic First Emphasis of Good Turn Program

An attack against traffic accidents leads off the year-long Boy Scout Safety Good Turn Program. To assist Scouts and Scouters in this phase of the campaign, the National Safety Council is making available new and special pieces of material for mass distribution.

Samples of these materials and prices and order blanks are being sent to all council managers.

One of these pieces is the Do-A-Good-Turn bumper strip—an adhesive-backed strip printed in fluorescent ink on heavy-duty paper. Measuring 4- by 12½-in., it is imprinted with the slogan: "Do A Good Turn—Be Courteous in Traffic." A miniature of the bumper strip, the bike or dashboard strip, measures 1- by 3-in. and is designed for placement on

bicycles or on dashboards of automobiles.

The Do A Good Turn hang-on tag is designed to be hung on house door knobs, automobile door handles, or bottle tops. This piece shows a Scout saluting and saying "My Good Turn is to Remind You—" followed by a number of suggestions for reducing traffic accidents.

Aimed to promote the Safety Good Turn Program in general is the special multi-colored cam-

paign poster. This 17- by 23-in. piece depicts a saluting Boy Scout and bears the slogan, "Help the Scouts Help You—Be Prepared—Prevent Accidents."

All these materials have been designed to assist this important Scout program. The selection offers a wide use potential which could be adapted to meet almost every opportunity to promote traffic safety.

To implement the Safety Good Turn Program, it is suggested

Circle Item No. 72—Reader Service Card

STOP SLIPS, FALLS

Trowel on. Dries quickly. Provides safe non-slip footing on all surfaces, wet or dry. Resists oil, chemicals, water and weather conditions. Adheres firmly to wood, concrete and metal. One gallon covers approximately 40 square feet.

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Write for Free Ferrox Bulletin.

AMERICAN ABRASIVE METALS COMPANY

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Weatherite
BAKED ENAMEL

SIGNS

STANDARD REGULATION
SIGNS OF ALL KINDS FOR
SAFETY AND EFFICIENCY

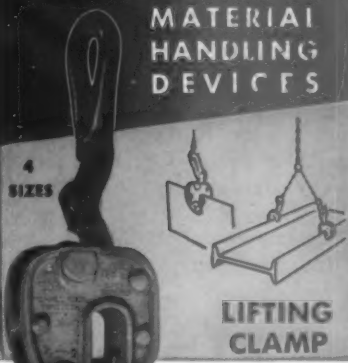


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PRAIRIE STATE PRODUCTS CO. 3822 LAWRENCE AVE. CHICAGO 25, ILL.

Circle Item No. 73—Reader Service Card


YOUR BEST MOVE... MOVE
with **MERRILL**
MATERIAL HANDLING DEVICES




LIFTING CLAMP




TWIN LIFTER




DRUM LIFTER



DRUM TILTER



HAND GRIP



DRUM OPENER

For Interesting Information write

MERRILL BROTHERS

56-28 Arnold Ave., Maspeth, N. Y.
3-R-6

Circle Item No. 74—Reader Service Card

that industrial firms, safety organizations, civic groups, and associations can perform a tremendous public service furthering the cause of safety and the Scout movement by providing quantities of these materials for distribution by the Boy Scouts.

Rochester Students Hold Conference

Delegates from 31 area high schools took part in eight hours of discussion, speeches, movies, and reading at the 3rd Annual Teen-age Traffic Safety Conference on January 7 in Rochester, N. Y.

In addition to drafting recommendations for action by officials and by students, the conference approved the drafting of a Teen-age Traffic Safety Code. The code will be drawn up at a later meeting and distributed to all students of driving age in Rochester and in Monroe County.

Maricopa Council Workshop

The Industrial Section of the Maricopa (Ariz.) Safety Council held an Industrial Safety Workshop for business executives on each Monday evening from January 6 through February 24.

Workshop chairman was E. R. Wheeler, Industrial Section Chairman. J. Scotty Wallace, council manager, was the Workshop Coordinator.

Field Service National Safety Council

Headquarters: 425 North Michigan Ave., Chicago, Ill. Paul Hill, manager; Noble Dutton, assistant manager; Joseph Lovvorn, finance advisor; Nils A. Lofgren, program consultant.

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*Temporary Address

SAFETY ENGINEERS

Foreign Employment

Career opportunities for graduate engineers with minimum 5 years practical safety engineering experience in oil operations, heavy industrial or chemical industries. Must know A.P.I. codes and be familiar with hazards peculiar to oil industry, one capable of promoting programs; another to provide staff safety design and process engineering service for over-all company operations. Conducting meetings for personnel in all levels.

High salary plus liberal all-inclusive benefits conducive to large savings. Excellent community facilities.

Write outlining background and experience. Please include telephone number.

Recruiting Supervisor,
Box 263

**ARABIAN AMERICAN
OIL COMPANY**

505 PARK AVENUE
NEW YORK 22, NEW YORK



WHAT'S NEW

IN

NATIONAL SAFETY COUNCIL SERVICES



Another Book of Five-Minute Talks

The 52 talks in Book 8 of 5 Minute Safety Talks for Foremen were especially prepared from earlier books in the popular series. The talks provide balanced coverage of all the major types of occupational accidents.

The nation's accident experience is the basis on which the 52 subjects for the book were selected.

Book 8 covers safety in handling objects, in working with machinery and vehicles, in using hand tools, and off-the-job and general safety.

This most recent book in the series, like its seven predecessors, can be used as the basis of a short safety talk tailored to fit local conditions, or delivered straight if the safety director is pressed for time.



National Safety News, April, 1958



Do's and Don'ts Also How's and Why's

Rules for Safety is the biggest booklet of rules ever compiled. The National Safety Council hopes you will agree that it is also the best.

Printed in two colors, the 40-page booklet covers accident prevention do's and don'ts, how's and why's. It gives safety rules for using power tools, stacking material, and lifting and carrying, to name a few.

* Look to this page each month for latest news about NSC services. Address request for additional information, samples, or prices to the Membership Service Division.

Operation Safety

This summer should see the beginning of a new trend in traffic safety efforts. Activity has been accelerated during the early part of the year beginning with the meeting of state and local officials in Washington D. C. which spelled out immediate needs under the Action Program for Traffic Safety.

The regional conferences of the President's Committee have been in progress this spring helping to spur greater public support efforts for these needs on a state and local level.

Encouraged by the significant downward turn in traffic fatalities, the 96 organizations making up the Traffic and Transportation Conference of the National Safety Council have acted to extend the nationwide Back the Attack campaign through 1959—its third year.

The way is now clear for civic, business, and industrial organizations to rally support behind officials and the official traffic program. Business and industrial firms especially can make an enormous contribution to traffic safety by adding their weight behind the community's traffic program. But to be really effective, all organized efforts should be undertaken with the concurrence of the traffic officials and if possible, channelled through a soundly-based local safety council.

Through Operation Safety, published monthly in *Traffic Safety* magazine monthly programs can be carried on as part of this total community effort.

The Operation Safety theme for June is Speed Control. Educational programs both for employees and on a community-wide basis should stress the need for "proper" speeds—not too fast, not too slow, and the importance of proper attitudes on the use of the roads for safe, efficient movement.

Toward the end of the summer, the Inventory of Traffic Safety Activities analyses will be given to your states and local communities. It would help traffic programs immeasurably if business firms and civic groups undertook a campaign to inform the community of its traffic needs as indicated in the Inventory analysis.

For a More Successful Poster Program



JUMBO POSTER for JUNE 1958

The Jumbo poster, issued monthly, is designed for outdoor use and is available to members on annual subscription but is not stocked. Its actual size is 9' 11" by 11' 8".

SAFETY BANNER FOR JUNE, 1958

Here is the attention-getting, monthly cloth banner. Available in two types—indoor and outdoor—both are identical in size (10 feet long by 40 inches high), have the same general message and multi-color design. Indoor type is of sturdy drill with grommets for easy hanging, while the outdoor banner is of extra heavy drill, with wind vents, and has strong stitched-in rope for durability.

POSTER program aids miniaturized on this and the following pages are NEW — shown here for the first time. Those illustrated in one color are actually printed in two or more colors.

Also, be sure to refer to the 1958 directory section of occupational posters (December 1957 issue, National Safety News) which contains an excellent selection of 756 posters on a great variety of subjects.



1301-A

8 1/2 x 11 1/2

This new four color poster is illustrative of the 72 four color posters shown in the 1958 Poster Directory.



Electretypes of poster miniatures on this page are not available, nor can payroll inserts be supplied.

Posters below are printed in two or more colors
(Available only in sizes indicated)



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1134-A 8½x11½



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1306-B 17x23



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1320-A 8½x11½



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1234-A 8½x11½

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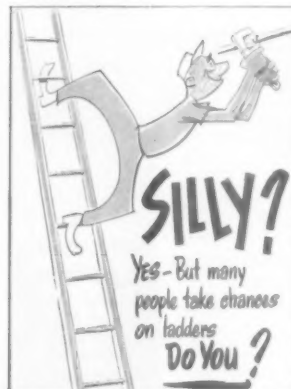
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1269-A 8½x11½



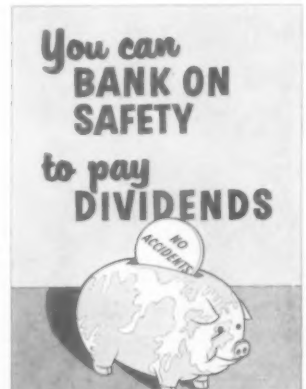
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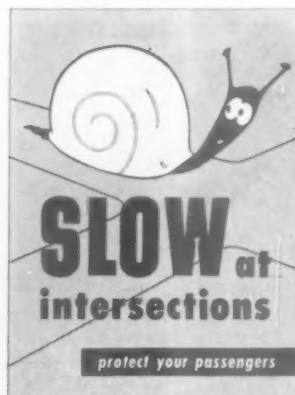


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GOOD DRIVERS



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T-1323-C 25x38
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V-1313-A 8½x11½



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V-1312-B 17x23

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High Energy Fuels

—From page 29

Callery's safety record in the past two years is comparable to the petroleum industry's in frequency and is much lower in severity than any of the process industries. The company's safety record has shown steady improvement as personnel have gained experience and further developed engineering techniques in this new commercial field.

Safety Measures

To work with boranes safely, workers must avoid inhalation, skin contact, or ingestion of any borane material. In all normal operations laboratory workers wear long sleeved clothing and eye protection. Use of rubber gloves and respiratory protective devices is mandatory in case of a spill or where there is a possibility of contact with vapors or liquid. In the presence of high concentrations of vapors, rebreather type apparatus or air-line masks are recommended. In the event

of spills a 3 per cent aqueous ammonia solution is used to neutralize and wash fuel from skin, clothing, floors, and equipment.

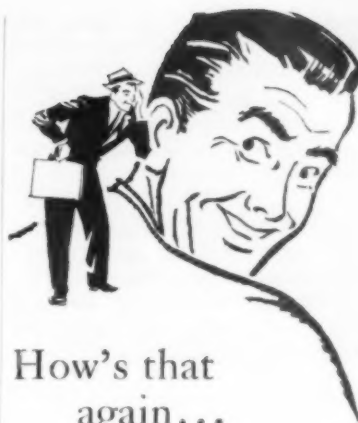
Laboratory investigations usually are conducted in fume hoods. Air in these hoods is changed five to ten times a minute. Laboratories are maintained at a positive pressure with an auxiliary heater-blower supplying warm outside air. Because of chemical reactivity, as well as toxicity, experiments are completed in an all-glass vacuum line system whenever possible. This technique was developed primarily for use in the boron hydride field and has the added advantage of giving accurate results, using only small quantities of reactants. Equipment, such as dry boxes, also is used to combat reactivity of chemicals and to protect research personnel.

Because of reactivity of various fuel intermediates, all equipment, whether in the laboratory, pilot plants, or production units, is flushed carefully with nitrogen prior to use to remove water and air and insure safe operation. In setting up engineering scale research equipment, 1/4-inch steel plate is used as protection for the operators and as a panel board. This, in connection with a "soft" wall on one side of the steel-walled rooms, has served satisfactorily during the past several years. Each of these rooms is exhausted by its own blower, and air entering the building is tempered and used to pressurize experimental units. Thus, physical and toxic protection is afforded operators.

In full scale operations the same basic rules are followed to give safe operating conditions. Buildings are adequately ventilated and much of the construction is of the outdoor type, reducing chances of toxic exposure. In addition, the larger plants make greater use of distance for protection, with consideration given to the large quantity of materials in process.

New Uses of Boranes

As of now the largest "new" use for boron compounds is as high energy fuels. Many of the new compounds have unique chemical



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Circle Item No. 75—Reader Service Card

National Safety News, April, 1958

properties. One of the most notable chemical properties of boranes, which make their commercialization inevitable, is their reducing ability. Most commercial reducing agents, although rather inexpensive, are not particularly selective. Boranes are quite selective. In fields where purity of yield is important, as in pharmaceutical or perfume industries, boranes are now in use and will find much wider application, as their price is reduced.

Various boron compounds have had application in such diverse areas as polymerization catalysts, fuel additives, bacteriocides and fungicides, and as a welding flux. It is possible to protect the more active metals with a film of unreactive metal boride with some of these compounds. Methyl borate is a nonaqueous solvent which could improve certain reactions. One of the most recent applications of a boron compound is use of trimethoxyboroxine as a metal

fire extinguisher for titanium, zirconium magnesium, and others.

Development of boron-containing high energy fuels has aided in opening a new, exciting field of chemistry. Boron hydrides and various related compounds are toxic, but their safe use depends only on proper knowledge and safety practices. Incidentally, there has been no indication of permanent damage to any Callery employee in the past 10 years. This is particularly important as far as the future of both high energy fuels and commercial boron chemicals are concerned.

With these observations, based on thousands of routine medical tests performed periodically on several hundred employees, military and industrial leaders can be assured that boron compounds will assume their rightful place in our military and industrial economy.

The Safety Library

—From page 50

tribution Section, 4800 Forbes St., Pittsburgh 13, Pa. 1957. 25p. Report of Investigation 5380.

Radiation

Protection Against Neutron Radiation Up to 30 Million Electron Volts. National Bureau of Standards. 1957. 88p. 40c. Superintendent of Documents, Washington 25, D. C. Handbook 63.

Tools

Uniform State Code Relating to Powder Actuated Tools Using Studs, Pins, and Fasteners. Powder Actuated Tool Manufacturers Institute, 250 E. 43rd St., New York 17. 8p. 1957.

Workmen's Compensation

State Workmen's Compensation Laws. U. S. Bureau of Labor Standards. 1957. 70p. Bulletin 161 (revised). 30c. Superintendent of Documents, Washington 25, D. C.

Workmen's Compensation Problems—IAIABC Proceedings 1957. U. S. Bureau of Labor Standards. 1957. 317p. Bulletin 192. Superintendent of Documents, Washington 25, D. C.

MAGAZINE ARTICLES

Accidents

Work Injuries in the United States, 1956. *Monthly Labor Review*, Jan. 1958, p.54-58.

National Safety News, April, 1958

Circle Item No. 77—Reader Service Card

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**WITH HOLT
EXPLOSION
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Holt Commander is designed expressly for safe maintenance of floors in oil refineries, atomic research plants, powder factories, and other hazardous industries. There's no outside wiring, Entire unit, from brush to handgrip, is constructed, sealed and safety-tested to prevent sparks and static that might ignite gas, dust, fumes or vapors. Static eliminator wire in brush, a Holt exclusive, even prevents shocks to operator.

With this one machine and Holt Quick-Change Attachments you do a complete floor maintenance job — polish, wax, buff, scrub, etc. Dual handles give operator better control; reduce fatigue. Made in 16 and 20" sizes. For full story write now to Dept. W4

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Aeronautics

Faulty Approach Cited in Landing Crash. (CAB Accident Investigation Report.) *Aviation Week*, Feb. 10, 1958, p.110-117.

Let's Eliminate a Statistical Stigma "Pilot Error." Jeff Sutton. *Flying*, Feb. 1958, p.28-29.

Construction

How Standards Assure Safe Construction. C. H. Luedeman. *Magazine of Standards*, Jan. 1958, p.6-7.

Goggles

Plano Problems in a Safety Program. George C. Hill. *American Journal of Optometry and Archives of American Academy of Optometry*, Jan. 1958, p.25-30.

Health

The Acid Mantle of the Skin Surface. Herman Goodman. *Industrial Medicine and Surgery*, Feb. 1958, p.105-108.

Industrial Hygiene and Occupational Disease in Puerto Rico. Luis E. Ramos-Yordan. *Industrial Medicine and Surgery*, Feb. 1958, p.80-82.

A Medical Department in a Small Industrial Plant. A Ten-Year Study 1947-1956. J. M. Krick. *Industrial Medicine and Surgery*, Feb. 1958, p.70-74.

Medical Department Layout and Design. Section II. William J. Fulton. *Industrial Medicine and Surgery*, Feb. 1958, p.85-104.

Safeguarding Executives' Health: What Industry Is Doing. Lydia Strong. *Industrial Medicine and Surgery*, Feb. 1958, p.109-114.

Hospitals

Safety In Action—How An Accident Prevention Program Reduced Workmen's Compensation Costs. Avery M. Millard. *Hospitals*, Feb. 1, 1958, p.36-38.

Mines

Safety in 1957. *Coal Age*, Feb. 1958, p.110-111.

Radiation

Health Hazards in the Diagnostic Use of X-Ray. Paul C. Hodges. *Journal of the American Medical Association*, Feb. 8, 1958, p.577-584.

Ionizing Radiation and Longevity of Physicians. Raymond Seltzer and Philip E. Sartwell. *Journal of the American Medical Association*, Feb. 8, 1958, p.585-587.

Titanium

Today They Grind Titanium Routinely. D. S. Foote. *Machine and Tool Blue Book*, Feb. 1958, p.136-140.

Waste Disposal

Recent Legislation Affecting Industrial Waste Disposal. *Industrial and Engineering Chemistry*, Feb. 1958, p.95-96.

ADDRESSES OF MAGAZINES MENTIONED

Readers are asked to send their requests for copies of magazine articles to the publishers, rather than to the NSC Library, which is unable to fill such orders.

American Journal of Optometry and Archives of American Academy of Optometry, 1509 Foshay Tower, 821 Marquette Ave., Minneapolis, Minn.

Aviation Week, McGraw-Hill Publishing Co., 330 W. 42nd St., New York 36.

Coal Age, McGraw-Hill Publishing Co., 330 W. 42nd St., New York 36.

Flying, Ziff-Davis Publishing Co., One Park Ave., New York 16.

Hospitals, American Hospital Association, 18 E. Division St., Chicago 10.

Industrial and Engineering Chemistry, American Chemical Society, 20th & Northampton Sts., Easton, Pa.

Industrial Medicine and Surgery, 605 N. Michigan Ave., Chicago 11.

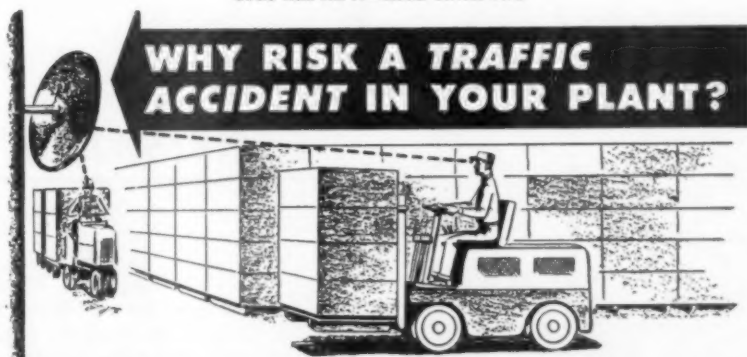
Journal of the American Medical Association, 535 N. Dearborn, Chicago 10.

Machine and Tool Blue Book, Hitchcock Publishing Co., 222 E. Willow Ave., Wheaton, Ill.

Magazine of Standards, American Standards Association, 70 E. 45th St., New York 17.

Monthly Labor Review, U. S. Bureau of Labor Standards, Washington 25, D. C.

Circle Item No. 79—Reader Service Card



KLEAR-VU SAFETY MIRRORS are the answer to the dangerous blind corner problem in your plant or warehouse. They are also adaptable for outdoor use in your parking lot, loading dock area or other points where traffic converges.

Mounted at cross aisle intersections, entrances and exits at a height of 8 to 10 feet, Klear-Vu Safety Mirrors clearly reflect oncoming intersection traffic to both power truck operators and pedestrians.

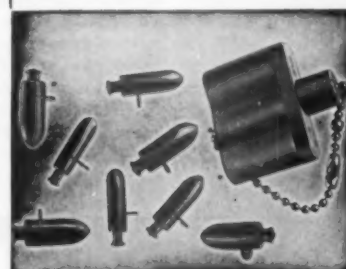
Style	No.	Dimensions
Circular Convex Glass	120	12" dia.
Circular Convex Glass	180	18" dia.
Circular Convex Glass	240	24" dia.
Circular Convex Glass	360M.R.	30" dia.
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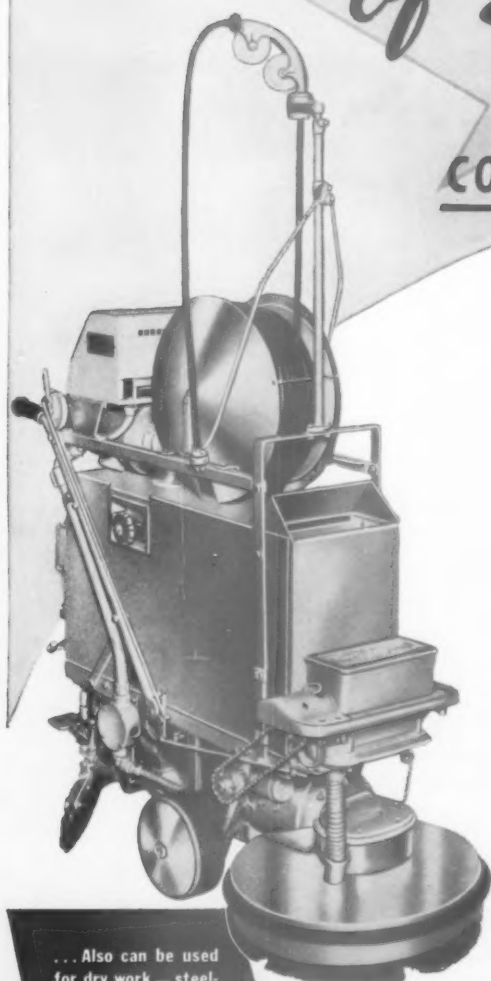


SMALL-AREA BUILDINGS...

Save $\frac{2}{3}$ of Every Hour
of Scrubbing Time

WITH A

COMBINATION SCRUBBER-VAC!



... Also can be used
for dry work — steel-
wooling, et cetera

(Powder Dispenser
is an accessory)

Today, even buildings with but 2,000 to 15,000 sq. ft. of floor space can reap the labor-saving, cost-reducing benefits of *combination-machine-scrubbing*. Here's a *Combination Scrubber-Vac*, Finnell's 418P at left, that's specially designed for such buildings. This *electric* unit, with its 18-inch brush spread, cleans floors in *approximately one-third the time* required with a conventional 18-inch machine and separate vac.

The 418P applies the cleanser, scrubs, and picks up (damp-dries the floor)—*all in one operation!* Maintenance men like the convenience of working with this single unit... the thoroughness with which it cleans... and the features that make the machine simple to operate. It's *self-propelled*, and has a *positive clutch*. There are no switches to set for *fast* or *slow*—slight pressure of the hand on clutch lever adjusts speed to desired rate. The powerful vac performs quietly. Compactly built, the 418P also serves advantageously in larger buildings for the care of floors in narrow aisles and congested areas, and is available on lease or purchase plan.

Finnell makes *Scrubber-Vac Machines* for small, vast, and intermediate operations, and in *gasoline* or *propane* powered as well as *electric* models. From this complete line, you can choose the size and model that's exactly right for *your job* (no need to *over-buy* or *under-buy*). It's also good to know that a *Finnell Floor Specialist and Engineer* is *nearby* to help train your maintenance operators in the proper use of the machine and to make periodic check-ups. For demonstration, consultation, or literature, phone or write nearest *Finnell Branch* or Finnell System, Inc., 2204 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

FINNELL SYSTEM, INC.

Originators of Power Scrubbing and Polishing Machines



BRANCHES
IN ALL
PRINCIPAL
CITIES

New SAFETY EQUIPMENT

Product announcements in this section are reviewed for compliance with the advertising policy of the NATIONAL SAFETY NEWS. Inclusion should not, however, be construed as endorsement or approval by the National Safety Council.



Harness Coverall

A coverall with a built-in safety harness provides safer working conditions for men in tanks, man-holes or similar situations. The coverall (SD-3909) fills the need of an everyday work coverall and at the same time provides a means of quick rescue.

The harness consists of a system of 2" Saran web belting held in position inside the garment. There is a separate loop of belting for each thigh and shoulder. All loops join together at the back of the suit and lead to a D ring where the lifeline is attached.

When an emergency occurs and rescuers pull on the lifeline, all loops automatically tighten in place. Therefore, lifting action is even and well distributed, and the worker comes up in a vertical position. Pulling harder on the lifeline is claimed to give a more secure grip on the wearer.

The coverall can be used as a regular work garment until it is needed for rescue work. The garment material is sanforized blue denim.

Standard Safety Equipment Co., 232 W. Ontario St., Chicago 10, Ill. (Item 301)



Full Face Mask

This lightweight, low-cost gas mask providing eye, face, and lung protection has a single canister that threads directly into the face piece. The mask is designed to eliminate carbondioxide

build-up in the face piece and to prevent lens fogging. Each canister is individually packaged in a moisture-proof tube.

It is recommended for use where full face and eye protection is required, but moderate concentrations of vapors or gases eliminate the necessity for a large canister with carrying harness.

The mask may be used for protection against such gases and vapors as ammonia, sulphur-dioxide, carbon tetrachloride, naphtha, etc. It should not be used where there is a deficiency of oxygen or where concentration of gases or vapors exceeds .5% by volume.

Pulmosan Safety Equipment Corp., 644 Pacific St., Brooklyn 17, N. Y. (Item 302)



Squeeze Bottle Lens Cleaner

K-Lens-M Lens Cleaner is available in a plastic squeeze bottle. A squeeze results in a fine spray of cleaner fluid on the lens, which can be wiped off with a lens tissue. A hinged snap cap is attached to the squeeze bottle spray.

The cleaner is a liquid method of cleaning personal and protective eyewear, is effective on glass and plastic, and leaves no film or streak.

The Wilkins Co., Inc., 220 Groton Ave., Cortland 44, N. Y. (Item 303)



Stainless Steel Washfountains

Stainless Steel Duo Washfountains, as shown in the illustration, have met the Syracuse, N. Y. City Health Department's requirement for foot-controlled washing facilities to supplement restroom facilities.

A foot control of the water means the hands touch only the clean water spray. **Bradley Washfountain Co., N. 22nd and W. Michigan Sts., Milwaukee 1, Wisc. (Item 304)**

For More Information—Circle Item Number on Reader Service Postcard



Dry Chemical Extinguisher

Dry chemical powder is now available in a 2½ lb. pressurized extinguisher for extinguishing flammable liquid and electrical fires.

Model 23-1 is recommended for emergency vehicles, trucks, and buses, and various light industry applications where protection is desired against fires starting in

gas, oil, paint, propane, chemicals, and electrical equipment.

Depression of the squeeze lever spreads a 60-degree angle blanket of non-freeze, non-toxic, non-conducting dry chemical powder to a range of 12 feet. The 2½ pound model is UL rated at 2-B, C.

The case is corrosion-resistant and conspicuous. It operates at a pressure of 150 psi and in the accompanying bracket can be mounted near probable hazards. The new rubber valve assembly is said to be leakproof and foolproof.

The Fyr-Fyter Co., 221 Crane St., Dayton 3, Ohio (Item 305)



Insulated Head Protection

The KV short-brimmed hat or cap provides protection to the head and neck against impact from falling or flying objects and from

electric shock and burn.

The plastic Estherene hat has no metal in the suspension or chin strap. The plastic guarantees the wearer maximum shock absorption and minimum shock transmission to the head and neck. The hats pass the mechanical proof test, electrical proof tests and all other tests as specified by the Edison Electrical Institute and federal government.

The hat will tolerate prolonged temperatures ranging from minus 25 F to plus 180 F without distortion. The insulated hats have the under-brim of the visor painted with non-metallic green to reduce glare and eye fatigue. The hats are available in white, yellow, gray, and orange. Plastic wedges stitched around the sweat band fit into molded hangers inside the shell. Sweat bands are made of two types of material—leather or non-toxic vinyl. The crown straps of the suspension are assembled to distribute the impact of the blow equally to all areas of the head.

E. D. Bullard Co., 2680 Bridgeway, Sausalito, Calif. (Item 306)



Branded Chain

Identification of chain by make and grade is important from safety service stand-points. The problem in permanently branding chain is to do it without stamping the marks into the links. This is now possible by embossing

the marks onto the links. The make and grade marks appear alternately at approximately 10" intervals along the chain opposite the weld, and on only one side of the link. The permanent branding is available in "Inswell" Proof Coil, BBB, High Test and Herc-Alloy chain in all sizes under ½".

Chain users can be sure at all times of the grade (strength) of the chain they are using—a definite safety advantage.

Columbus McKinnon Chain Corp., 160 Fremont St., Tonawanda, N. Y. (Item 307)



Automatic Mask Washer

Clogged spray masks are cleaned of paint deposits in this automatic mask washer while the operator continues work.

The portable cleaning station may be set beside the spray booth or at any convenient location.

The air motor operates on any compressed air supply and the entire unit occupies only 2¼ sq. ft. of floor space. The station consists of a seam-welded, steel wash tank containing a crankshaft on which the masks are hung in the cleaning solvent. An air-operated motor provides a rotary motion to the crankshaft to clean both sides with a single setting. The tank cover contains a fusible link which melts in the event of fire in the cleaning solvent, and automatically closes the cover to snuff out the flame.

A fire-protective 60 gal. container is placed on the lower shelf of the tubular steel stand to receive paint-saturated waste solvent from the wash tank.

There is no air-agitation of the solvent. Tests show that the air-injection principle of washing is unsatisfactory and releases a hazardous volume of solvent vapors. With an air engine employed as the power unit, however, there is a minimum release of vapors and no possibility of a spark igniting these vapors as would be the case with an electric motor.

The Protectoseal Co., 1920 S. Western Ave., Chicago 8, Ill. (Item 308)

For More Information—Circle Item Number on Reader Service Postcard



Synthetic Leather Gloves

Depending upon the operation for which these gloves are used, the manufacturer claims they will out-

wear up to 24 pairs of leather gloves.

The gloves are buff colored and are made of synthetic leather. It is claimed that they will satisfactorily withstand all commercial and industrial launderings. The synthetic leather does not harden or dry out.

They are particularly adaptable for usage where the operation requires a glove that is a heat insulator.

Twin City Glove Mfg. Co., Inc., P. O. Box 384, Dover, Ohio (Item 309)



Emergency Oxygen Inhalators

Three new models have been added to this manufacturer's line of

emergency oxygen inhalators.

Following the introduction of a 2 cu. ft. portable 9 lb. inhalator, a lightweight inhalator (21 lbs. in case) with an oxygen supply lasting 50 minutes or more on 100 per cent oxygen setting was developed. The unit will supply a dilution of 50 per cent air with a twist of a dilution valve.

The 2 cu. ft. and 16 cu. ft. capacity inhalators are also offered complete without cases, but with mounting brackets so they may be readily accessible in permanent locations in factories, planes, offices, service trucks, etc.

All oxygen inhalator models are assembled with dilution valve, hose, disposable face piece, breathing bag, pressure regulator (UL approved) and oxygen supply.

Davis Emergency Equipment Co., Inc., 47 Halleck St., Newark, N. Y. (Item 310)

Cable Fireproofing Tape

A cable fireproofing tape, which saves time and money and exceeds the requirements of public utilities by its strength in fire, water, acids, and alkalis, has been especially designed so utilities and industries can use it to protect cables in circuits with fast-acting breakers. It is also used as a fireproofing material by other industries and will protect cables for years under manhole conditions. This durability is the result of its asbestos construction and impreg-

nation with silicones. The tape is high in water repellence, low in water absorption, resistant to flame, oil, fungus, and mold, non-corrosive to cables, and has residual strength after burnout.

Johns-Manville Corp., Dept. TX-6A, 22 E. 40th St., New York 16, N. Y. (Item 311)



Safety Goggles

"Softie" Coverall Goggles, in both welder's and chipper's models, are constructed with vinyl plastic frames and provide comfort by molding to the face.

Model GS-400 (lower illustration) the welders' model, has lightproof indirect ventilators to eliminate harmful light rates and glare. It is fitted with removable rings and filter lenses. Model GC-400 (top) for chippers is similar in style to the GS-400 except that direct ventilation and clear frame are provided the replaceable rings are fitted with clear, safety-hardened or laminated 50 mm lenses. Both models are equipped with pliable nose shields. Frame sizes fit over prescription glasses.

Glendale Optical Co., Inc., 600 W. Merrick Rd., Valley Stream, L. I., N. Y. (Item 312)



Aluminized Asbestos Fire Suit

This suit consists of a helmet, jacket, trousers, shoes, mittens, and carrying case totaling 23 pounds. It is pliable and donned in less than two minutes.

Constructed with two basic inner linings of Neoprene-treated fiberglass cloth to serve as vapor barrier, the suit also features a one-inch layer of fiberglass insulation bonded to aluminum foil, plus an outer layer of 3-M aluminized asbestos.

The manufacturer states that the fire suit, equipped with a self-contained breathing apparatus, has been tested in oil fields and by fire departments, and has been used at temperatures of over 2,000 F for four-minute periods in jet fuel, hydraulic fluid, lacquer thinners, dope, and other flammable liquids.

Safety Clothing & Equipment Co., 1990 E. 69th St., Cleveland, Ohio (Item 313)

For More Information—Circle Item Number on Reader Service Postcard



Sheet Lifter

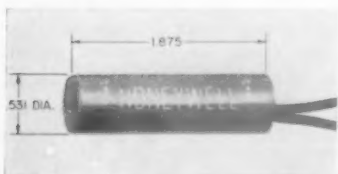
Model 12651 is a self-contained, power-tilt, 4-cup lifter with a 2,000 pound capacity.

The power tilt gives versatility to vacuum lifting because the cups are automatically rotated to vertical or horizontal positions, eliminating maneuvering by operation as with lighter models. The lifter is crane suspended so sheet or plate can be handled by crane for warehouse or storage stacking, while free-suspension permits positioning by the operator for press or other machining operations in line production.

Among the specifications for the unit are several safety factors. The guiding handle, designed for flexible handling, is ratchet-controlled for positioning at various heights as the lifter is raised or lowered. The controls and indicator light design provides safe manipulation. The switch for stopping and starting two motors operating the air compressor and vacuum pump is located just above the nameplate on the housing. The indicator light just above the switch indicates when the motors have been turned on. Sets of indicator lights on each side of the lifter show when vacuum has been applied to the cups and the unit is ready to lift. Green or red shows whether the vacuum has been applied, providing visual safety warning.

Palm-type electric control buttons are located on the guiding handle. Two of the buttons are for rotating and vertical positioning of the cups. The third and fourth buttons apply and release vacuum to the cups respectively. The latter control button is especially guarded to avoid accidental release by the operator. Interlocking safety checks insure fail-safe rotation electrically and mechanically. There are five ASME approved storage tanks. Four of these provide air to the rotating motor and air for flowing into the cups for release. The fifth tank is for vacuum storage. These tanks are equipped with pressure gauges and safety pop-off valves.

Vac-U-Mation Div., F. J. Littell Machine Co., Dept. 5-W, 4555 N. Ravenswood Ave., Chicago 40, Ill. (Item 314)



Shock-Chemical Resistant Mercury Switch

A nylon-enclosed mercury switch that resists the harmful effects of shock and splashing fluids is unaffected by water or vapor and is resistant to oil, alkalis, and acids. This switch is suitable for photographic and testing applications where chemical splash is a factor.

Model 7-MP1-2 consists of a glass tube mercury switch embedded in a synthetic rubber compound and enclosed in a nylon can. The resilient embedment material lessens the effect of vibration and provides insulation and a seal for the lead entrance.

There is no space inside the enclosure where moisture can collect to cause corrosion or electrical failure. Dependable switching is offered from 35 below zero to 200 F.

Micro-Switch Div., Minneapolis-Honeywell, Freeport, Ill. (Item 315)



Safety Shoes

Three independent steel plates overlap up the front of this safety shoe to extend steel toe protection to the entire forepart of the foot. A "Floating Bridge" over the ball joint flexes

with the foot, permitting normal walking comfort. Ball joint and instep shields have a vulcanized Neoprene coating that resists abrasion. The instep shield buckles over the lacing and cannot be removed from the shoe. Heavy-duty, oil-resistant Neoprene-Cork outsole and heel provide skid-resistance and maximum service. They are designed for yard gangs, riggers, drillers, construction crews, or any men handling heavy materials.

Lehigh Safety Shoe Co., First & Minor Sts., Emmaus, Pa. (Item 316)



Water Extinguisher

A 2½ gallon pressurized water extinguisher of corrosion-resistant stainless steel has been tested and approved for use on Class "A" fires by Underwriters' Laboratories and Factory Mutual.

The extinguisher requires no bumping or inverting to be activated. Just snap back the locking lever, aim the nozzle at the base of the fire and squeeze the one-hand grip. A 45-foot, fire-drenching stream is produced. The spring-loaded valve gives on-and-off control of the stream. The unit can be pressurized at any standard air hose carrying 10 psi. The enlarged filler-opening has a fast-closing bayonet coupling. A gauge shows at a glance if the unit is charged and ready for service.

Walter Kidde & Co., Inc., 145 Main St., Belleville 9, N. J. (Item 317)

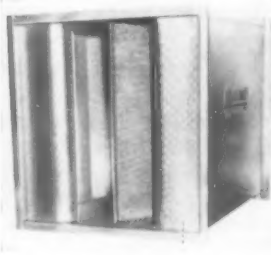
For More Information—Circle Item Number on Reader Service Postcard

Safety Surface

CIDCO NON-SLIP is a paint-like product, which can be applied to any contour and rigid or flexible material. After application, the carrier and the particles remain permanently resilient. This results in such properties as high slip resistance, long wear, quiet when sliding or rolling loads pass over, noise absorbance, and resistance to sparking.

The material can be applied by spraying, brushing, troweling, rolling, dipping, or spreading with adhesive type spreaders and it adheres to metal, wood, plastics, glass, ceramics, leather, etc. It can be used in the presence of a wide range of chemicals and solvents. The product is available in colors. At room temperature it dries tack-free in a few minutes and attains full strength in 24 to 48 hours.

California Industrial Development Co., P. O. Box 301, Livermore, Calif. (Item 318)



Modular Silencer

A production line modular silencer is designed to achieve additional economies by reducing installation

costs in new and older buildings.

"Mod-U-Silencers" are available in full sizes, 24" x 24" x 30"; half sizes, 24" x 12" x 30"; and quarter sizes, 12" x 12" x 30". Each unit is rated for airflow, pressure drop, and performance by an independent laboratory. Where additional performance requirements are necessary, units can be installed in "parallel" to handle large volumes and can be placed in "series" for added noise control.

Air Conditioning Dept., Industrial Acoustics Co., 341 Jackson Ave., New York, N. Y. (Item 319)



Shock-Noise Air Muffler

"Silenc-Air" is a dissipative type air muffler that absorbs and dissipates sound energy. The product is made from reinforced plastic and is designed to eliminate the objectional shock-noise of exhausted air from air-operated equipment.

The baffling material inside the plastic shell is of bonded fiber-glass wool and cannot rust, rot, corrode, or compact. Moisture does not affect the unit, as the material is moisture-proof.

To eliminate noise from exhausted air, it is necessary to slow down the velocity rate of dissipation. The unit accomplishes this by expanding the air through the porous liner. The air is then vented into the normal atmosphere at a reduced speed, thereby eliminating the noise shock.

The units are at present being produced in two sizes, one having an over-all length of 6" and a smaller unit of 3 1/4" over-all. The former unit has a 3/8" female pipe thread and is recommended for air line pressures of 120 psi. The smaller unit is equipped with a 1/4" female pipe thread and handles air line pressures of 90 psi or less.

Osborn Mfg. Corp., Box 167, Warsaw, Ind. (Item 320)



Rayon Cleaning Tissues

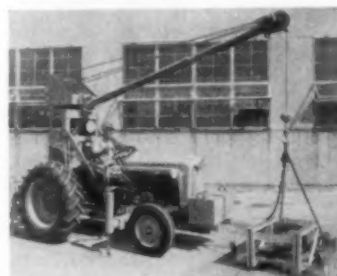
These non-scratching rayon fiber cleaning tissues are suitable for wiping plastic lenses of safety goggles.

The tissues are made with 1/4" (or longer) fibers and fill the need for a non-silicone impregnated cleaning tissue. The tissue has been developed to conform to U. S. Government specifications for a cleaning tissue which would neither scratch nor mar plastic lenses.

The wet-strength of the fibers eliminates shredding or tearing when the surface to be wiped is either fogged or wet.

The tissue is manufactured in a standard 3" x 7" size and will fit most dispensers now in use.

Lensclean, Inc., 135 W. 25th St., New York 1, N. Y. (Item 321)



Yard Handling Unit

This unit, capable of lifting 5,000 pounds, can be installed on wheeled or track-

type tractors by bolting directly to the chassis. It is adapted to material handling in industrial yards.

The high pivot point of the boom, made in lengths of 12 to 16 ft., permits full use of the tractor body in loading or unloading. Adjustable guy lines permit lengthening of the boom to any elevation and spotting loads where desired. The boom swings 280 degrees and can be mounted in an 18" space.

The mast is constructed of heavy cold-drawn stainless steel tubing mounted in ball bearings. A hydraulic cylinder which is an integral part of the boom, provides power topping of the boom for radius adjustment.

A full set of fingertip controls mounted in close proximity to the tractor controls assures safety and efficiency of operation.

Anthony Co., Streator, Ill. (Item 322)

For More Information—Circle Item Number on Reader Service Postcard



Foamite Fire Unit

A Foamite ST unit employing a protein stabilizer type charge now produces fire-killing chemical foam which actively resists water discharged from

an overhead sprinkler system.

The unit reportedly will eliminate the need for water deflection canopies in industries using dip tanks, drain boards, and quenching tanks.

Tests show that the chemical foam is able to serve its function whether water from overhead sprinklers is applied before, during, or after a foam blanket has been laid.

In developing the new chemical recharge for the tests that were conducted, a protein base stabilizer was incorporated, which provided considerably greater foam expansion (as high as 35 to 40 per cent). With foam volume increase, a correspondingly higher application rate is possible—assuring more rapid and positive means of fire extinguishment for hazards involving dip tanks, drain boards, and/or quenching tanks. The illustration shows the stages of one of the tests conducted to assess the effects of water throughout the life of a fire.

Fire Prot. Equip. Div., American LaFrance Corp., Elmira, N. Y. (Item 323)



Butt-Snuffer

The Butt-Snuffer has been designed to be fastened permanently to walls, posts or columns, as a receptacle for cigarette butts.

Industry has found that carelessly thrown cigarette butts are the cause of many fires. The Butt-Snuffers act as a deterrent to this dangerous practice.

Safety Floor Products, 3038 W. 84th Place, Chicago 29, Ill. (Item 324)

Ground Director and Power System Alarm

The PRD-C5700 Ground Detector and Power System Alarm Control is a high-resistance device which indicates the potential of each phase of the three-phase power system. The pressure is continually indicated by meters and pilot lights. At a preset differential in this voltage through relays and rectifiers, an alarm will sound when any fault occurs on the power system.

The device is an automatic detector and alarm with low wattage consumption. No high-voltage surges are induced on the power system, and the

detector automatically sounds an alarm if the detector becomes faulty. It can be installed hundreds of feet from the distribution system, will operate successfully under rugged conditions, and has built-in extra contacts for signals other than alarms. The detector protects itself by using only one-ampere fuses.

The device provides positive visual and alarm detection of: fault grounding on normal ungrounded distribution systems causing the potential in each line to drop beyond a preset differential; single phasing of system supply; unbalanced system; locked rotor of large motors and single phasing; overloading of transformers causing heating and low efficiency and arcing and surging which tends to build up high line-to-ground potential and is dangerous to personnel.

The early detection of minor grounds reduces the possibility of breakthroughs caused by the resulting high potential, thereby reducing the hazard to electrical equipment and personnel.

The detector is designed for secondary voltages ranging from 208 to 2,400.

Principle Research & Development Corp., 615 S. Main St., Aberdeen, S. D. (Item 325)

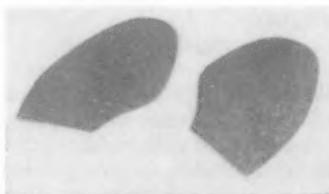


Car Dropper's Belt

The Safe-Hi Car Dropper's Belt gives protection to workmen during car-switching and a variety of other occupations.

One of the features of the belt is its 1½" throat opening, drop-forge snap for attachment to ladders, pipes, and similar objects. The belt also has a quick-release, metal-to-metal buckle, and is made of 5,000 lb. nylon webbing. It has an adjustable nylon waist belt, and the buckle and nylon webbing give safety and wear. The belt is available in colors.

Rose Mfg. Co., 2700 W. Barbary Place, Denver, Colo. (Item 326)



Anti-Slip Shoe Surface

"SHUR-TRED" is designed to reduce the hazards of slipping or skidding occurring

on icy, oily, or wet floors. The tread is attached to the soles of rubbers, boots or shoes. The product has been tested in plating shops, slaughter houses, garages, machine shops, and in other places where

For More Information—Circle Item Number on Reader Service Postcard

slippery conditions exist. A special adhesive insures positive attachment of "SHUR-TRED" to rubbers, boots, or shoes, and the water-repellent bond assures protection under all conditions.

Coated Abrasives, Inc., 209 S. 2nd St., Milwaukee 4, Wisc. (Item 327)



Antiseptic Hand Soap

Daily usage of Handisan with Actamer is said to reduce resident skin bacteria by as much as 97 per cent. Resident bacteria on the skin include many deeply im-

bedded grampositive organisms, not readily removable with soap and water, and are responsible for superficial skin infections which may be contributory to secondary infections resulting from cuts and scrapes. Handisan with Actamer, by inhibiting the growth of offending organisms, reduces the effects of their activity. By remaining in contact with the organisms and the skin long after application, the soap provides continuing protection from multiplication of residual bacteria.

Turco Products, Inc., 6135 S. Central Ave., Los Angeles 1, Calif. (Item 328)



Automatic Fire Detector

An Underwriters' Laboratories approved, non-electric, self-contained fire detector system and single station fire alarm incorporates a non-mechanical glass eye monitor. A glass-eye monitor

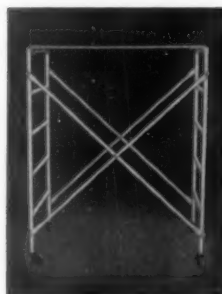
eliminates the maintenance feature of other gas-operated alarms and tells at a glance that the detector cylinders are in operating condition.

Operating temperatures for the alarm are 136 and 174 F.

As many detector cylinders as may be required can be attached to a 1/4" diameter aluminum tubing, which is attached to the outside of buildings. Horns can be located as far as 1,500 ft. from cylinders and will blow for 20 minutes. Manually operated test cylinders are placed in each separate line of tubing, so periodic tests can be made or used for fire drills, etc.

The system is adaptable to any type of industrial plant, ships, etc.

The unit carries approvals by UL, U. S. Coast Guard and Federal Civil Defense.
Standard Alarm & Signal Co., 259 Main St., Madison, N. J. (Item 329)



Folding Scaffold Unit

An all-steel, light-duty scaffold unit that folds completely for moving or storage is called the "Handyman."

The unit is 6 feet high and the plywood platform is 5 feet long. The over-all width is 28 in.

One man can easily set it up in a few minutes, and by removing the braces from one ladder section, the unit folds neatly for hauling atop a car or in a station wagon. The platform can be removed from the top rung and placed on any rung desired. The 3 in. swivel casters are rubber-tired and of the locking type. Guard rails are available as optional equipment.

Bil-Jax, Inc., Archbold, Ohio (Item 330)



Neoprene Apron

Model YL-1-RE is a 45" yellow neoprene apron, full-cut and has wide tape neck ties for comfort. It is reinforced across the entire top and all other points where the tape joins. The yellow color is a recognized safety feature and the reinforcing belly patch is open at

the bottom so liquids cannot collect. Stitching on the patch is recoated with plastic to make the apron leak proof.

The Plasco Safety Products Co., 21 W. Pleasant St., Springfield, Ohio (Item 331)



Aluminum Scaffolding

Illustrated are several types of portable and sectional aluminum scaffold products.

From left to right are pyramid arrangements of the 29" span scaffold, wide-span scaffolds and high-clearance scaffolds. To the right is the bridge scaffold and six-and-a-half section stairway scaffold with outriggers. The scaffolds are of welded tubular aluminum construction.

Aluminum Safety Products, Inc., 289 Fifth Ave., New York 16, N. Y. (Item 332)

For More Information—Circle Item Number on Reader Service Postcard



Stretcher Case

A special metal case makes it possible for this manufacturer's stretchers to be stored in accessible positions throughout buildings. The cases are welded and made from heavy-gauge steel or

aluminum. There is sufficient room in the case to store a blanket and a medium-size first-aid kit.

The cases will protect the stretcher against dust, moisture, and chemical fumes in any plant where the atmosphere is laden with dust particles, or where fumes or smokes would render a stretcher unusable if left outside.

Bomgardner Mfg. Co., P. O. Box 567, Cleveland 7, Ohio (Item 333)



Grounding Devices

This device provides constant grounding of moving conductors as they are pulled on a stringing job. The "Ever-Ground" gives protection to linemen against accidental energizing of con-

ductors and protects the linemen against fatal injuries and severe burns.

The device is reportedly easy to install, as it snaps on the line at any point without a threading-through operation. Tension is adjusted by simply turning the knurled knob. The contact rollers have Oilite bearings, so oiling is not necessary. The "Ever-Ground" is available for all sizes of conductors.

Paul S. Everley Co., 550 Ninth St., San Francisco 3, Calif. (Item 334)

Conductive Floor Cleaner

Spal Concentrate Detergent has been listed by Underwriters' Laboratories, Inc., as a safe cleaner for conductive floors.

UL tests show Spal remains within proper safety limits when used on conductive floors. Spal cannot form an insulating film of lime soap. Other UL tests determined that Spal does not precipitate insulating oils or fillers and is useful on conductive floors in removing an accumulation of old wax or for routine cleaning.

C-2C Conductive Wax has previously been listed by UL as safe on electrically conductive floors.

Huntington Laboratories, Inc., Huntington, Ind. (Item 335)

Safety Solvents

SS-25 safety solvent has been formulated as a replacement in the industrial cleaning field for toxic solvents, such as carbon tetrachloride, and for volatile solvents, such as naphtha, kerosene, and gasoline. SS-25 is approximately 25 times safer to use than carbon tetrachloride and has no flash at the boiling point. The solvent can be used for cleaning electric motors, metal parts and machinery, electronic machinery, electronic components, electrical components, and for cleaning many other parts and surfaces where a fast drying, non-corrosive, safe solvent is desired.

National Disinfectant Co., 2417 Commerce St., Dallas, Texas (Item 336)



All-Purpose Absorbent

"PICKUP" is an all-purpose absorbent said to soak up more than its own weight in oil, greases, and other fluids. Its low density per cubic foot provides greater floor coverage per bag and

provides a dry, non-slip floor surface to reduce personal injuries and fire hazards caused by oily, slippery floors.

"PICKUP" has been approved by UL and is safe for use on industrial floor surfaces. It is chemically neutral, will not injure personnel or equipment, is dust-free, and is unaffected by heat or cold. It is non-flammable and reduces fire hazards.

Diversey Corp., 1820 Roscoe St., Chicago 13, Ill. (Item 337)

For More Information—Circle Item Number on Reader Service Postcard

NEWS ITEMS

Zenith Radio Corporation

Robert G. Stuart has been appointed general sales manager of the Hearing Aid Division of this company.

Mr. Stuart has extensive experience in both wholesale and retail sales operations, and will coordinate the activities of the Hearing Aid Division's sales organization. He has been with Zenith since 1953, and prior to this time was sales manager for one of the Zenith distributors, Hollander and Company, Inc.

Industrial Acoustics Co., Inc.

A. C. Hawthorne, sales manager of the Industrial Division, has been appointed vice president. Mr. Hawthorne has been with Industrial Acoustics for three years, and before joining the company was an officer of E. E. Huff and Co., Inc., Sales Engineering Representatives and Consultants. Prior to that he was associated with the Hill Diesel Engine Co. as manager of the Washington office.

NEWS ITEMS

CONTINUED

Dockson Corporation



C. W. Piggott

H. E. Piggott

J. Kramer

This Detroit, Mich., manufacturer of head and eye safety equipment and welding equipment marked its 35th anniversary with a company celebration and the presentation of service awards to its employees.

Harold E. Piggott, president, received a diamond-set 35-year award. Charles W. Piggott, vice president, and Joseph Kramer, development engineer, received diamond-set 25-year awards. The corporation is one of the country's leading welding and safety equipment manufacturers with a nationwide distributor organization.

* * * *



Ansul Chemical Co.

James B. Reed has been appointed manager of Detroit Operations (Fire Equipment Sales) for this Marinette, Wis., fire equipment manufacturer. Mr. Reed will be responsible for all of the company's fire equipment sales in Michigan's lower

peninsula.

He is a member of the American Society of Safety Engineers, and has been with Ansul since 1949.

* * * *



Strong, Carlisle & Hammond

Louis J. Lackner has been named manager of the new Safety Equipment Division of this Cleveland, Ohio company.

Lackner is a member of the following organizations: American Society of Safety Engineers and vice-chairman of the Ohio Chapter; Executive Committee—Electrical Equipment Section of the National Safety Council; Board of Control of the Cleveland Safety Council and Cleveland Personnel Association.

He has been associated with the safety industry for 20 years. The selection of safety equipment was made to broaden this manufacturer's service to industry. A wide variety of safety equipment is available.

Bridgeport Industrial Products, Inc.



Raymond L. Fawcett, Jr., has been named sales manager for a new safety equipment supply center.

Mr. Fawcett has had many years of experience in the accident prevention and industrial safety field. He has been associated with the Electrolux Corporation and The Bryant Electric Division of Westinghouse Corporation as supervisor of safety. Prior to joining The Bryant Electric Company, Mr. Fawcett was Connecticut sales representative for the Pulmosan Safety Equipment Corporation. He is a member of the National Safety Council, Bridgeport Safety Council, Connecticut Safety Society, and Past President of the Stamford Safety Council.

The safety supply center will handle a complete line of safety equipment and supplies to meet the requirements of Connecticut industry.

* * * *

Wyandotte Chemicals Corp.



H. Hastedt

C. J. Martin

W. W. Lee

A series of promotions was recently announced by Ford Ballantyne, Jr., vice president of Wyandotte Chemicals. Howard Hastedt (left) has been promoted to the home office staff as manager of the Dishwashing and the Maintenance Sales Department. C. J. Martin (center) has been promoted to manage the Chicago District and W. Wright Lee (right) has been promoted to manage the Buffalo District.

* * * *

Distribution Research Aids

A summary of activities, services and publications of the Federal Government which are useful to business in distribution research has been published by the U. S. Department of Commerce. Entitled: "Activities and Services of the Federal Government in Distribution Research," the booklet describes three main types of distribution research programs carried out by many Federal government agencies. It lists sources for a wealth of material which is valuable for any type of business. Copies are available at 40c from the Government Printing Office or Department of Commerce field offices.

TRADE PUBLICATIONS

These trade publications will keep you up-to-the-minute on new developments in safety equipment and health products. All catalogs are free, and will be sent without obligation. Just circle publication number on the Reader Service Postcard.



Information for Industry:

A brand new full color packet offered by the E. I. DuPont Company features illustrated information sheets on products and services available from the Grasselli Chemicals Division. The attractive sheets cover subjects that are of particular interest to various segments of industry. Included in the industrial coverage and products are the following: Manufacturing—Anti-skid coatings for paper containers and strong fiber glass laminates; Maintenance—Safer waxed floors and new dry acid cleaners; Construction—Chemicals for protecting wood and property; Laboratory—Safe reagents and flame retarded paper and textiles; Safety and Comfort—Safety shoes and work gloves, anti-skid materials and many others. E. I. DuPont de Nemours & Company, Inc. Grasselli Chemicals Dept., Room N. 2533-S, Wilmington 98, Delaware.

For more details circle No. 400
on enclosed return postal card

Safety Shoes:

A new 1958 catalog illustrates and describes more than 90 Hy-Test Safety Shoe styles, available in more than 6,500 different designs, lasts, sizes and widths. Included in the catalog are the newest additions to the 1958 line such as the new Nok-a-Bout oxfords, Llama Calf oxford and the new Cush'n-Guard Flap shoes designed to protect the full instep as well as the toes. Safety oxfords, shoes and boots are grouped into separate sections. Other pages offer information about the great variety of Hy-Test features designed for safety, comfort and long wear. "Facts about Features" charts are again included in the catalog. These make it possible to learn quickly, at a glance, which safety shoes are available in a specific style, for a special use or with any certain features. A new section devoted to Findings and Store Equipment, is also included. Hy-Test Safety Shoes, Division of International Shoe Co., 1509 Washington Ave., St. Louis 3, Mo.

For more details circle No. 401
on enclosed return postal card

Silent Chain Drives:

(Book 2425), available from Link-Belt Co., Dept. P. R., Prudential Plaza, Chicago 1, Ill., contains 88 pages of detailed engineering data and illustrations of the versatility of silent chains in a wide range of applications. The book also contains tables of service factors, ratings, chain lengths and center distance computations. Pre-engineered stock drives are listed and

a 22-page section outlines procedures for selections of engineered drives.

For more details circle No. 402
on enclosed return postal card

Floor-Maintenance Equipment and Supplies:

Illustrated 4-page folder describes "Everything for Floor Care"—Scrubbing, Waxing, Polishing, and Mopping Equipment; also Waxes, Sealers and Cleaners, with recommendations for use and packaging information. New or improved products include a low-built Motor-Weighted Floor-Maintenance Machine (800 Series) in several sizes. Finnell System, Inc., 2200 East St., Elkhart, Ind.

For more details circle No. 403
on enclosed return postal card

Protective Clothing:

Head-to-toe, foul-weather protection featured in its newly introduced line of polyvinyl chloride-impregnated North PVC garments is described in a new bulletin published by Jomac Inc., Philadelphia 38, Pa. The bulletin reviews and illustrates the company's new all-weather protective clothing for personnel engaged in outside occupations. The impregnated outerwear is ideal for policemen and firemen, maintenance workers and guards, construction and pipeline workers, farmers and telephone, gas and electric utility repairmen. The new line, shown in photos and sketches in the bulletin, include three basic garments: a full-length coat, overalls and a short coat usually worn with overalls. The bulletin also describes available accessories, such as patch pockets, special vents and adjustable or elastic storm cuffs.

For more details circle No. 404
on enclosed return postal card

Air Compressors:

A startling photographic introduction is used in a new general bulletin, the SG-1, which describes the entire line of Westinghouse unit-type and LeRoi stationary-type air compressors manufactured by the LeRoi Division. The compressors range in size from 1/2 to 100 hp and include both single and compounded-stage models. Design, speeds and methods of lubrication and cooling are explained. Working capacities are also given. LeRoi Division, Westinghouse Air Brake Co., Milwaukee 1, Wis.

For more details circle No. 405
on enclosed return postal card

Jib Cranes:

A detailed catalog sheet describing the base mounted Jib Cranes manufactured by Becker Crane and Conveyor Co., 4900 Ridge

Road, Cleveland, Ohio. The sheet includes an illustrated description of the Jib Crane construction along with an engineering drawing and table of dimensions that provides all needed information for the selection of crane capacity, boom length and height of lift. The Jib Cranes covered range in capacity from 500 to 10,000 pounds.

For more details circle No. 406
on enclosed return postal card

Gas Welding Equipment:

Modern Engineering Co., 3409 Pine Blvd., St. Louis 3, Mo., manufacturer of "Meco" oxy-acetylene welding and cutting equipment, announces its revised 36-page, 1958 Welding Equipment Catalog (No. 160), covering recommended applications of its complete line of oxy-acetylene welding and cutting torches, machine cutting torches, welding regulators, industrial regulators, pressure gauges, tank couplings, adaptors, hose connections and safety instruction manual.

For more details circle No. 407
on enclosed return postal card

Versatile Controls:

Simple all-purpose electrical controls, known as Versatrols and suitable for use with virtually any detectable variable, are described in a 12-page Bulletin 106 available from Assembly Products, Inc., Chesterland, Ohio. The bulletin explains applications of the most common Versatrol circuits, both automatic and limit, including the new Load Sentry overload control. Like all API controls, Versatrols are built around contact meter-relays of almost infinitely variable sensitivities, operating directly from any electrical signal. Trip points are adjustable and there is continuous signal indication.

For more details circle No. 408
on enclosed return postal card

Handling Hazardous Materials Safely:

A 12-page folder illustrates some 26 different technical enclosures for the safe handling of all types of contaminants. The equipment is made from stainless steel for easy decontamination, cleanliness, and corrosion resistance. Equipment described in the technical bulletins include: low intensity dry box, biological enclosures, vacuum dry box, micro-biological safety cabinet, fume hoods, inoculation hood, animal cage, dry radioactive waste container, all-purpose unitized safety enclosures, and others. S. Blickman, Inc., 8400 Gregory Ave., Weehawken, N. J.

For more details circle No. 409
on enclosed return postal card

Aluminum Ladder Products:

Catalog No. 57 illustrates and describes manufacturer's complete line of Aluminum Ladder Products, including steps, platforms, straight ladders, extensions, scaffold planks, and stages. These products have the Underwriters Laboratories' approval. Louisville Ladder Co., 1101 West Oak St., Louisville, Ky.

For more details circle No. 410
on enclosed return postal card

Magnesium Pusharound All-Purpose Hand Trucks:

A new 4-page folder picturing and describing Brooks and Perkins' expanded line of magnesium two-wheeled hand trucks and optional accessories. There are 8 basic models with 26 items of optional equipment. Brooks and Perkins, Inc., 1950 W. Fort St., Detroit 16, Mich.

For more details circle No. 411
on enclosed return postal card

Large Induction Motors:

A new 16-page bulletin, No. 1950, presents detailed information on a full line of motors in ratings from 150 to 1250 HP. Motors of this size fill the demands imposed by ever larger process machinery and industrial operations, such as refinery pumps, compressors, cooling-tower pumps, mixers, rock crushers, impact breakers, etc. Cut-away drawings and illustrations show the protection offered by the open drip-proof, splash-proof, enclosed and explosion-proof enclosures in which these motors are built. The Louis-Allis Co., 427 E. Stewart St., Milwaukee 1, Wis.

For more details circle No. 412
on enclosed return postal card

Acid Resistant Ware for Laboratories and Industries:

Sixteen-page catalog now available covering Polyethylene and Nylon products, not affected by concentrated acids, oxidizing agents, hydroxides and polar liquids. Illustrates and describes 64 products. Technical properties are discussed in their relation to this new development in Laboratory ware. General Scientific Equipment Co., 7516 Limekiln Pike, Philadelphia 50, Pa.

For more details circle No. 413
on enclosed return postal card

Piston Ring Replacement Brochure:

An 8-page brochure designed to help engineers obtain maximum engine performance by careful attention to replacement of piston rings, has been published by the Piston Ring and Seal Department of Koppers Co., Inc., Baltimore 3, Md. Procedures for checking pistons and cylinders are included in the brochure, as well as helpful suggestions on the installation of new rings. Clearance tables for compressors and engines are also given.

For more details circle No. 414
on enclosed return postal card

Uses Unlimited, Volume II, No. 2:

This is the latest issue of the Micro Switch publication, which is aimed at the design engineer and other users of precision switches. This issue includes many new types of switches, which are being offered, including a "Plug-In Limit" switch which can be replaced on a machine in a matter of seconds. Designers working with problems of high temperatures are brought up-to-date in another article on the latest developments in high-temperature switches. Helpful application examples described include an indexing machine, an elevator control, submersible pump, automatic metal spinning machine, and a new aircraft "sub-

hunter-killer." Micro Switch, a Division of Minneapolis-Honeywell Regulator Co., Freeport, Ill.

For more details circle No. 415
on enclosed return postal card

Vent-Silencer Brochure:

A brochure describing the new Quiet-Vent silencer, which filters out sound from return air vents is available from the Air Conditioning Department, Industrial Acoustics Co., Inc., 341 Jackson Ave., New York 54, N. Y. These unique silencers, which prevent the transmission of noise without impeding air passage, are finding wide usage in offices, hospitals, hotels, etc., where freedom from disturbing noises and conversational privacy is of utmost importance.

For more details circle No. 416
on enclosed return postal card

Rolled Steel Floor Plates:

A concise, yet comprehensive dissertation on the physical properties and capabilities of Ancor Rolled Steel Floor Plates is contained in a 4-page bulletin, AMC-1, which is available from the Ackermann Mfg. Co., Wheeling, W. Va. Easily installed, these 11 and 16 gauge 12-inch square, Ancor plates are said to end floor replacements and provide safe, quiet and durable industrial flooring. Specifications, uses and typical installations are included.

For more details circle No. 417
on enclosed return postal card

Steel Doors and Frames:

A new 8-page catalog fully illustrates with charts, photographs and descriptive drawings, new door design, commercial/residential doors and frames, commercial/industrial doors and frames, residential closet doors, and hardware. The Steelcraft Mfg. Co., 9017 Blue Ash Road, Cincinnati 42, Ohio.

For more details circle No. 418
on enclosed return postal card

Structoglas "A":

This comprehensive catalog on Structoglas "A" reinforced plastic corrugated building panels and flat panels details complete information on the product's mechanical and physical properties, chemical resistance, colors and finishes. A technical data table details thicknesses, standard lengths, finishes, coverage, lapping, and spans for 100 pound loads. In addition to Structoglas "A" panels, Structoglas "SE" fire-retardant panels are described. This new self-extinguishing panel features a flame-spread rating of 60-70 and a Fuel Contribution of 10. It is listed in the approved equipment manual of the Factory Mutual Engineering Division, and is listed by Underwriters' Laboratories, Inc., and carries the Underwriters' Laboratory label. Structoglas Division of International Molded Plastics, Inc., 4387 W. 35th St., Cleveland 9, Ohio.

For more details circle No. 419
on enclosed return postal card

Hand Pumps:

A new 8-page catalog, No. 310, using more than 40 pictures and drawings, describes the complete line of Flo-master hand pumps for handling liquid materials from drums, barrels, underground and skid tanks and storage vats. The catalog presents the various pump styles and models in application and cut-away illustrations, and also provides a pump selection chart which describes each model, in order to assist the reader in choosing the right pump for each job. Blackmer Pump Co., Grand Rapids 9, Mich.

For more details circle No. 420
on enclosed return postal card

Electric Hand and Hair Dryers:

Brochure describes floor and wall-model hand hair dryers. It points out how equipment reduces wash-room maintenance by eliminating need for paper towels. Dryers have an automatic shut-off feature. Chicago Hardware Foundry Co., North Chicago, Ill.

For more details circle No. 421
on enclosed return postal card

Closed Circuit Television Systems:

Insul-8 Vicon closed circuit television systems are fully described in new, 6-page pamphlet No. V-1-58. The pamphlet gives complete, easy-to-read descriptions of Vicon cameras, camera control, monitors, and accessories, with technical information confined to a "specifications" page. Illustrations, which demonstrate Vicon's ease of maintenance and operation, feature the Camera Control, said to be the first true modular control unit. It consists of plug-in sub-assemblies that can be removed and replaced individually in minutes, to reduce downtime to the minimum. Insul-8 Corp., 1369 Industrial Road, San Carlos, Calif.

For more details circle No. 422
on enclosed return postal card

Lift Truck Operator's Guide:

Information on lift truck construction, operation and maintenance, plus helpful data on handling and stacking techniques, are contained in a new Lift Truck Operator's Guide produced by Towmotor Corp., Cleveland, Ohio. The pocket-sized manual also contains valuable safety tips, shows popular lift-truck accessories designed to speed the handling of "special" types of loads.

For more details circle No. 423
on enclosed return postal card

Fireless Steam Cleaner:

Bulletin P-7578 describes how the Kelite Fireless, which is less expensive than comparable direct-fired steam cleaners, uses live steam from an existing steam supply, thus providing the efficient cleaning power of high-volume steam cleaners. An illustrated description of how the Kelite Fireless works, is included. The bulletin points out that maintenance of the machine is a simple matter since fire, spot, heat exchanger, scale, and special controls are eliminated. It adds that the Kelite Fireless is especially useful in hazardous locations where an open flame is not permitted, but where a steam supply exists. Kelite Corp., 81 Industrial Road, Berkeley Heights, N. J.

For more details circle No. 424
on enclosed return postal card

Hydraulic Lift Tables:

A new 8-page, two-color booklet describing how problems of lifting, feeding and work positioning may be simplified. Complete information and specifications of Southworth's four basic series of Lift Tables, together with typical adaptations of standard models and various applications in materials handling at production equipment. Southworth Machine Co., 41 Warren Avenue, Portland, Maine.

For more details circle No. 425
on enclosed return postal card

The "Beckman Electrolytic Hygrometer":

Bulletin EH-4001 provides detailed information on the features, operation and specifications of the portable, panel-mounted, and explosion-proof models of the hygrometer. The instrument is used to detect traces of water at dew points as low as 125° F. (one part water in one million parts of air) in gas dryers, recycle gases, refrigerants, instrument air lines, and welding and heat treating gases, as found in the

chemical petroleum, refrigeration, aircraft and missiles, and metals industries. Beckman/Process Instruments Division, Beckman Instruments, Inc., 2500 Fullerton Road, Fullerton, Calif.

For more details circle No. 426
on enclosed return postal card

Mobile Safety Electrification:

Insul-8-Bar Enclosed Conductor Systems for cranes, monorails and moving machinery are fully described in a new 6-page brochure. Liberally illustrated, the brochure demonstrates that Insul-8-Bar Systems meet all safety and installation requirements of mobile electrification, with neither special parts nor special engineering required. The brochure also explains, through photos and text, that installation is fast, easy and inexpensive. Insul-8-Corp., 1369 Industrial Road, San Carlos, Calif.

For more details circle No. 427
on enclosed return postal card

Comparison Chart for Electric

Fork Lift Trucks:

Potential purchasers of electric fork trucks can now impartially evaluate various types and models through a comparison chart available from Lewis-Shepard Products, Inc., Watertown 72, Mass. The chart enables users to survey simultaneously the operating, design and maintenance characteristics of three different trucks by filling in appropriate categories. Included are such items as turning radius, lifting and lowering speeds, fork elevations, collapsed height, type of controls, capacity and braking system. After noting the various specifications of each truck, the purchaser then can weigh the features and systematically select the proper unit for his requirements, eliminating considerable guesswork.

For more details circle No. 428
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AMPCO Welding News:

The Fourth Quarter 1957 issue of AMPCO Welding News, published by the Weldrod Department of AMPCO METAL, INC., is available for distribution. This issue describes a number of interesting and informative applications involving the use of aluminum bronze electrodes and filler rods. Articles are devoted to the repair of bronze turbine runners and vertical lathe spindles; the fabrication of composite drawing dies; and the difficulties encountered with a specially-constructed hinge arrangement for heavy steel doors. Other articles relate the latest improvement in packaging spooled wire and the advantages of a new flux developed by AMPCO Laboratories. AMPCO Metal, Inc., 1745 So. 38th St., Milwaukee 46, Wis.

For more details circle No. 429
on enclosed return postal card

Steam-Hydraulic Jet Cleaner:

Bulletin describes a new combination steam and hydraulic jet cleaning unit, Model CS-628, designed especially for use in heavy duty industrial cleaning jobs in off-highway, marine, railroads, truck transport, petroleum, aircraft and similar industries. According to the manufacturers, its versatile design makes it easily adaptable for use wherever steam or hydraulic cleaning is needed. The units provide either steam cleaning for high impact, heavy duty close up cleaning, or a hot hydraulic jet stream for cleaning distant surfaces, particularly those covered with caked mud, grease, ice, etc. Used as a steam cleaner, it produces 280 gallons per hour at 90 to 100 psi, maximum volume and pressure usable at close range through a single nozzle. It can also be converted to a one or two-gun operation at 140 gph per gun. As a hydraulic operated

cleaner, the Clayton-Sellers delivered 500 to 600 gph at 220 psi to 210° F., using a ¾ HP fractional motor. This obtainable pressure, according to the manufacturer, enables the operator to clean hard-to-reach cranes, frames, towers, bulkheads, chassis, etc. Clayton Manufacturing Co., 401 N. Temple City Blvd., El Monte, Calif.

For more details circle No. 430
on enclosed return postal card

Waste Receptacles:

This new catalog fully illustrates and describes the complete line of Bennett Self-Closing and Drop-In-Waste Receptacles, Garbage Can Enclosures, Toilet Tissue and Paper Towel Dispensers and Burn Baskets for safely discarding confidential papers. Bennett Mfg. Co., Inc., Alden, N. Y.

For more details circle No. 431
on enclosed return postal card

Rotary Valves:

Rotary Valve literature describing DAY Style "A" Rotary Valves has been announced by The DAY Co., 810 Third Ave., N. E., Minneapolis, Minn. This bulletin describes the various applications for day valves, types available and illustrates actual installations. Complete with dimensions, specifications and capacities.

For more details circle No. 432
on enclosed return postal card

Floor Absorbents:

Safety and all-purposeness are central features of floor absorbent detailed in comprehensive brochure. Use of floor absorbents in industry explained, advantages of product charted, flame and breakdown resistance test results shown in photos, applications illustrated. Wyandotte Chemicals Corporation, Wyandotte, Mich.

For more details circle No. 433
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Mine Ventilation:

A new 24-page catalog describes the production, construction and application of ABC Flexible Ventilation Tubing, ABC Brattice Cloth and ABC Powder Bags. A section of the catalog shows various couplings, fittings, and suspension devices for use with ABC tubing. Typical metallic and non-metallic mine installations are shown, as well as industrial uses. One page gives helpful hints to insure a longer service life for ventilation tubing. American Brattice Cloth Corp., 190 S. Buffalo St., Warsaw, Ind.

For more details circle No. 434
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Changeable Copyboards:

Effective safety selling at low cost has been obtained by Commonwealth Edison Co. through the use of changeable copyboards at their various plant locations in Chicago. A brochure describing and illustrating changeable copyboards is available from the Wagner Sign Service, Inc., 356 S. Hoyne Ave., Chicago 12, Ill.

For more details circle No. 435
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Flooring Products:

The 16-page, 4-color catalog illustrates and describes company's 1958 line of flooring products. This catalog includes complete information on B. F. Goodrich Rubber Tile, AIRPATH Cushioned Rubber Floor Tile (including a new 80 Gage Residential Thickness), "Agatine" Tile, Koroseal Vinyl Tile; also a new introduction, Fire-Retardant Koroseal Vinyl Tile; Asphalt Tile, Molded Rubber Cove Base, Molded Rubber Stair Treads, Edging Strip, Thresholds, Chair Rail, and Rubaduct. It includes flooring product definitions, specifications, features, latest colors and other pertinent information. B.

F. Goodrich Flooring Co., A Division of The B. F. Goodrich Co., Watertown 72, Mass.

For more details circle No. 436
on enclosed return postal card

Fork Truck:

A 4-page brochure, illustrating and describing its Elpar Model F-26T2, 2000 lb. capacity electric powered fork truck, has been published by the Elwell-Parker Electric Co., 4205 St. Clair Ave., Cleveland 3, Ohio. The truck is designed for those applications where quick handling and tiering of loads, often in confined areas, is an important factor. Center control, sit-down operation, with tilting and telescoping features provide for maximum ease of handling.

For more details circle No. 437
on enclosed return postal card

Fork Lift Truck:

A pair of brochures—one covering specifications and drawings; the other a pictorial descriptive bulletin—describing Automatic Transportation Company's "Elbolift," revolutionary new concept of an electric fork lift truck, is now off the presses. This industrial truck is now being built in 12,000 to 20,000 rated lifting capacities. Automatic Transportation Co., 149 West 87th St., Chicago 20, Ill.

For more details circle No. 438
on enclosed return postal card

Bulletin Board:

Bulletin shows cork back bulletin board with or without changeable letter insert for industrial use. Dimensions listed. Available in metal or wood and in various colors. A. C. Davenport and Son, Inc., 311 North Des Plaines St., Chicago, Ill.

For more details circle No. 439
on enclosed return postal card

Antiseptic Skin Cleanser:

A skin cleanser that can be used with or without water for the removal of grease, paint, ink, asphalt, as well as grime, is described in this folder which points out that the antiseptic and lanolin ingredients help control dermatitis. Several dispensing methods are shown, including washroom units, waterless stations, individual cans, etc. Dameron Enterprises, Inc., 427 S. 20th St., Louisville, Ky.

For more details circle No. 440
on enclosed return postal card

Safety Clothing:

Line of gloves, aprons, coats, pants, etc., in asbestos, leather, flame resistant duck and plastic shown in 9-page catalog. Contains guide for use of clothing by occupation. Pulmosan Safety Equipment Corp., 644 Pacific St., Brooklyn 17, N. Y.

For more details circle No. 441
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Mercury Lamps and

Transformers:

Brochure LS-103 offers a comprehensive source of information on the design and operating characteristics of these versatile light sources as well as the physical, electrical and output data of the G-E mercury line. It discusses the principle of the mercury arc as a light source and outlines the features of "color-improved," "White," and "semi-reflector" mercury lamps, each of which was developed to satisfy the requirements of various categories of lighting situations found in commercial and industrial activities. A table giving complete details for each lamp, from initial lumen output, through recommended burning position and price, is included. Another section contains information on transformers used with mercury lamps and includes wiring diagrams

which are used with the several types discussed. General Electric, Nela Park, Cleveland 12, Ohio.

For more details circle No. 442
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Leschen Crushing Bulletin No. 102:

Leschen Wire Rope Division, H. K. Porter Co., Inc., 2727 Hamilton Ave., St. Louis 12, Mo., announces a new illustrated 4-page folder on the subject of "Crushing" as a common hazard to wire rope. All of the major causes of "Crushing" are described, including overloading, quick starts, wrong sheave sizes, and others as well as actual mechanical crushing. The folder provides many suggestions for recognizing this source of wire rope troubles and for lessening or eliminating them altogether.

For more details circle No. 443
on enclosed return postal card

Materials Handling Equipment:

Heppenstall Company, 5th Ave. and 16th St., New Brighton, Pa., have made available a new catalog entitled, "Everything That Hangs From The Crane Hook." The catalog shows nearly 100 items, ranging from tiny automatic tongs that weigh only one pound each up to massive equipment that will lift loads of many tons. The basic arrangement is by the shape of the material to be lifted, whether square or rectangular, circular or cylindrical. Shown for the first time are new motorized tongs for lifting coils vertically, and the Heppenstall line of forged crane hooks. The catalog also includes automatic and motorized tongs for lifting material of any shape, weight, or size, as well as sheet lifters, rack lifters, motorized rotating hooks, "C" hooks, and other hooks.

For more details circle No. 444
on enclosed return postal card

Safety Tank Car Platforms:

Booklet describes and illustrates, "Neco" Safety Platforms for loading and unloading all fluid products from tank cars and tank trucks. The booklet illustrates four basic types of platforms manufactured by the company. Safety is the dominating feature of the manufacturer's devices, and according to the manufacturer, there has never been an accident recorded at a spot protected by a "Neco" Safety Tank Car Platform. Nichols Engineering Co., 3816 Grand Ave., Chicago 51, Ill.

For more details circle No. 445
on enclosed return postal card

"Fire Protection Service Plan:"

A new brochure points out how a company can do a complete job of protecting itself against damaging fire loss. The "Service Plan" emphasizes the need for fire fighting training and fire prevention planning. It also explains other "plus" services available to users of Ansul equipment: in-plant fire protection survey, visual aids for training meetings, fire control training and demonstrations, fire school for supervisory personnel. Ansul Chemical Co., Marinette, Wis.

For more details circle No. 446
on enclosed return postal card

"ABC of Fire Protection"

A complete discussion of the nature and advantages of fire protection systems is illustrated in this Bulletin 66. The complete range of fire protection components and systems manufactured by "Automatic" Sprinkler Corporation of America, Youngstown 1, Ohio, are described and pictured. Bulletin includes a two-page, two-color chart of the applications and functions of the different types of systems. Also covers fixed-temperature, rate-of-temperature-rise,

and alarm and control systems. Fire extinguishing methods, used in these systems, include water sprinklers, water fog, air foam, chemical foam, dry chemicals, and carbon dioxide.

For more details circle No. 447
on enclosed return postal card

Safety Cans

Five gallons of gasoline explode with as much force as 415 pounds of dynamite, according to information contained in a new Justrite Manufacturing catalog. The catalog features officially approved data on handling flammable and corrosive liquids, insurance requirements and methods of protection for hazardous fluids. According to manufacturer, in recent tests, scientifically fabricated and coated Justrite safety cans, even though completely wrapped in flames, remained ruggedly intact while the fire simply evaporated the flammable contents. Justrite Manufacturing Co., 2061 N. Southport Ave., Chicago, Ill.

For more details circle No. 448
on enclosed return postal card

Fire-Resistant Hydraulic Fluid

Literature describes an economical new "snuffer" type hydraulic fluid whose fire-resistant qualities prevent it from burning on contact with flames, heated metal surfaces, or molten metal. Called Iru Fluid 902, it is non-corrosive on ferrous and most non-metals, has no harmful effects on seals, fittings or bearings. Shell Oil Co., 50 W. 50th St., New York 22, N. Y.

For more details circle No. 449
on enclosed return postal card

Overhead Doors

Two bulletins—No. 92 has 12 pages on wood-type overhead rolling doors; No. 93 devotes 24 pages to steel types, including fire doors and grills. Construction details, manual and electric drives are covered in both. Kinnear Mfg. Co., 1720 Fields Ave., Columbus 16, Ohio.

For more details circle No. 450
on enclosed return postal card

Signals

Bulletin No. 100, an eight-pager, tells how to select paging systems, time signals, danger signals, and alarm systems for your plant. Shows typical selection technique for a plant, outlining factors that need to be considered. Federal Sign and Signal Corp., 8725 S. State St., Chicago 19, Ill.

For more details circle No. 451
on enclosed return postal card

Floor Dressing

This four-page folder lists the advantages (easy application, slip resistance, no buffing) shows application of a heavy-duty non-wax floor dressing. Shows you how to apply. Outlines floor-improvement plan available to users. Masury-Young Co., 76 Roland St., Boston, Mass.

For more details circle No. 452
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Rubber Gloves

Catalog WR-656-75-J, 16-pages, describes and illustrates industrial gloves and finger cots of rubber, latex, Neoprene, Buna-N, and plastic. Tells how to select gloves. Tables show suitability of gloves for variety of materials. The Wilson Rubber Co., 1200 Garfield Ave., S.W., Canton 6, Ohio.

For more details circle No. 453
on enclosed return postal card

Tread Plate

Applications and fabricating data are given in eight-page booklet on abrasive tread plate. Includes table of design data and sketches of suggested safety applications for the non-skid, corrosion-resistant

flooring material. Aluminum Company of America, 1671-F, Alcoa Bldg., Pittsburgh 19, Pa.

For more details circle No. 454
on enclosed return postal card

Rescue Kit

Folder describes uses and operation of hydraulic rescue kit. It's a hydraulic jack apparatus that can push, pull, lift, press, or spread. Handy in emergencies to save time in freeing victims trapped in disaster in buildings or vehicles. H. K. Porter, Inc., Somerville 43, Mass.

For more details circle No. 455
on enclosed return postal card

Plant Protection System

Bulletin 4-pages, gives data on portable watchclock system. The bulletin covers four models, gives performance characteristics, etc. Approved by Underwriters and Factory Mutual Laboratories. Chicago Watchclock, 1526 S. Wabash Ave., Chicago 5, Ill.

For more details circle No. 456
on enclosed return postal card

New Safety "Check List" Detects Explosion Hazards

This 8-page, illustrated folder contains a check list of 13 questions that can help you determine whether uncontrolled flammable gases, vapors, dusts, liquids, and other combustible materials are making your plant unsafe. Part of the folder is sealed until all the questions have been answered. After the seal is broken, an evaluation of the hazard potential in your plant is revealed, based on your answers and the findings of the National Fire Protection Association. Hazard Finder, Dept. HF, Crouse Hinds Co., Wolf & Seventh North Sts., Syracuse, N. Y.

For more details circle No. 457
on enclosed return postal card

Linemen's Rubber Protective Equipment

Protective equipment for linemen is shown in the 31-page illustrated catalog of the W. H. Salisbury & Co., Morgan & Kinzie Sts., Chicago 22, Ill. The catalog lists various types of safety equipment for making linemen's jobs safer. Items shown include line hose, insulator hoods, rubber blankets, snap-button jackets, rubber gloves and protector gloves, rubber sleeves, protective bags for linemen's gloves, compound pots, tagging devices, cable bandages, cross arm shields, insulating stools, switchboard rubber matting, clamp pins, rubber suits, etc.

For more details circle No. 458
on enclosed return postal card

Underfoot Safety:

Folder, well-illustrated, presents traction problems and tells how to solve them. Promotes safety through sure footing on wet, dry or oily surfaces. Describes uses on many danger spots, plus ease of application. American Abrasive Metals Co., 460 Colt St., Irvington, N. J.

For more details circle No. 459
on enclosed return postal card

Safety Solvents:

Cleaning of motors and generators, and other equipment, quickly, efficiently and safely, with company's detergent action safety solvent is detailed and illustrated in Bulletin A-28. Describes uses in industry, and includes graphs showing evaporation cycles, optimum evaporation rate. Turco Products, Inc., 6135 S. Central, Los Angeles, Calif.

For more details circle No. 460
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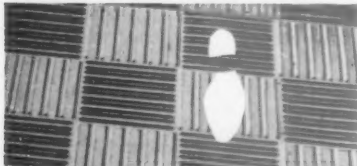

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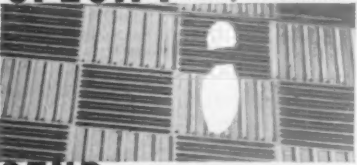
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Circle Item No. 83—Reader Service Card

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A comprehensive Classified Safety Product Index and a Directory
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Circle Item No. 84—Reader Service Card

National Safety News, April, 1958

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—feature equipment and services that will help you solve accident problems in your plant. Instead of making a "mental note," make sure you get full information by sending in the card. If no item number appears with an ad, it will be found on the opposite page, next to the arrow. Cover position ads are shown on the cards as: IFC—inside front cover; IBC—inside back cover; BC—back cover.

New Safety Equipment

—shown in the special section has been carefully reviewed. Only new products or newsworthy improvements in existing equipment are considered eligible for this section.

Trade Publications

—are catalogs, brochures, spec sheets and booklets—a wealth of helpful literature—describing equipment and services that will assist you in comparing before you buy. You can build a valuable safety equipment reference file with these free publications.

IMPORTANT—Be sure to fill in your name, organization and address in the space provided on this side of the postcard.

National Safety News, April, 1958

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475																								

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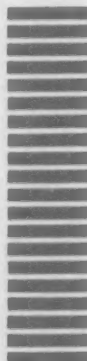
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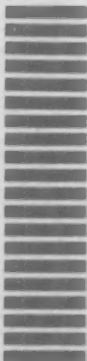
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National Safety News, April, 1958

CESCO

**the Complete Line that's
years ahead in safety,
style, and comfort!**



Plastic and Metal Frame Glasses

These new open-type safety glasses give your workers all the features they want most... smart styling plus on-the-job utility. Long-wearing plastic and metal frame makes them an economical safety equipment choice because lenses can be replaced separately. All-in-one plastic section does double duty as lens rim and Comfort Bridge pad. Provides full closure at nose section and is unaffected by skin oils and cleaning agents.

**In 2 Sizes • 46 x 39mm (No. 326)
48 x 41mm (No. 328)**

**Shape of Lens • F-7 in clear and anti-glare safety glass
and clear Cescolite plastic**

4 Bridge Sizes • 20, 22, 24 and 26 mm

ASK your distributor to show you his complete line of CESCO head and eye protective equipment. There's a CESCO distributor located in most major cities coast-to-coast.

Plastic and Metal Frame Glasses with Side Shields

The No. 336 plastic and metal frame glasses offer the same outstanding features as the glasses described above plus wire mesh side shields. Available in 2 sizes: 46 x 39mm and 48 x 41mm.



CESCO FOR SAFETY

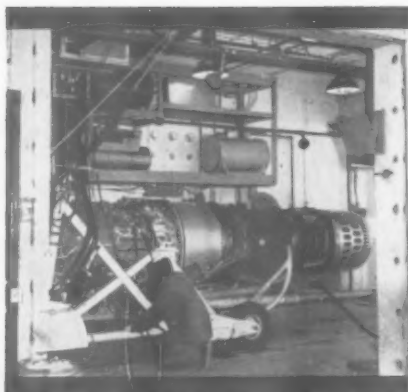


CHICAGO EYE SHIELD COMPANY
2705 West Roscoe Street, Chicago 18, Illinois



Jet engine run up check at Riverhead, L. I. plant, Grumman Aircraft Engineering Corp. Note AO Sound Protector on tester. Plane is the Tiger F11F-1. This plane flies supersonic in level flight and is the latest of a long line of Navy fighters produced by Grumman. It is powered by a J65 axial-flow turbo-jet with after burner.

Grumman's Jet Operational Plant Uses The **AO SOUND PROTECTOR** To Muffle Noise



Prior to installation in the plane, the jet engine is repeatedly tested in the Engine Test House. Without AO Sound Protectors, the noise would be intolerable.

A New Year's Eve celebration is quiet as a churchyard compared to checking jet engine run ups! To muffle noise of 140 plus decibels and to prevent fatiguing personnel, Grumman Aircraft Engineering Corp. chose AO 372-8 SOUND PROTECTORS.

Ruggedly constructed, the AO 372-8 Sound Protector maintains performance even after constant off and on use. Many installations report no replacement of any part even after 2 years. Ear seals are solid, comfortable vinyl sponge and *puncture proof* which lowers replacement costs. They are also non toxic and resistant to body oils.

Have a noise problem? Write us for literature containing attenuation charts which clearly prove the superiority of American Optical Sound Protectors over all others tested.

Available in helmets and with adjustable headgear.
Also with intercommunication systems.



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